

Nikola Tesla and the Science of ‘a Successful Paranoia’

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Abstract

This essay offers a psychoanalytic reading of Nikola Tesla’s remarkable text *My Inventions*, a series of articles published in 1919 for the *Electrical Experimenter* magazine, edited by Hugo Gernsback (Tesla, 2011). The paper argues that the famous ‘elementary phenomena’ described in these articles operate as proto-linguistic elements or enigmatic ‘signifiers’ that form the basis of his subsequent scientific inquiry. These articles demonstrate that unusually for a scientist, Tesla did not give up on the object cause of his knowledge nor on his own position as the subject of his inventions – indeed I argue that his inventions were the means by which Tesla created and realized himself as a subject. I discuss in particular two of Tesla’s inventions: the Rotating Magnetic Field, that is the basis for the AC induction motor, and the Magnifying Transmitter in the context of Tesla’s own accounts of their ‘psychological’ genesis. I will suggest that it was through these electrical inventions in particular that Tesla managed to design a form of subjectivation that enabled him to stabilize his schizophrenic symptoms and disclose the coherence and efficacy of knowledge and delusion. In so doing Tesla’s inventions perhaps point the way towards the delivery of science as ‘a successful paranoia’, in the terms of Jacques Lacan.

Our science’s prodigious fecundity must be examined in relation to the fact that [it] does-not-want-to-know-anything about the truth as cause...A successful paranoia might just as well seem to constitute the closure of science. Jacques Lacan (2006, p. 742)

Perhaps one day we will no longer know what madness was...[Its] traces, the indispensable grids through which we render readable ourselves and our culture. Michel Foucault (1996, p. 97)

Introduction

In ‘Science and Truth’, the final chapter of *Écrits* (2006), Jacques Lacan suggests that should science come to a point of closure it would constitute ‘a successful paranoia’ (p. 742). Since science shows no signs of drawing to a close, we can safely assume that its ultimate success or failure is yet to be determined, the latter no doubt by its outcome in some kind of global catastrophe of which there are many popular scenarios. In the meantime, we can say that our epoch – in so far as it is determined by the applications of scientific discourse in conjunction with capitalism – is relatively

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stable insofar as belief persists in the consistency and utility of scientific knowledge that, as the history of science demonstrates, is a locus of delusion and error.² Indeed, it is the coherence between delusion and knowledge that enables paranoia to stabilize schizophrenic symptoms in psychosis.

Science and psychosis have two main structural features in common: the rejection of the truth as cause and the ejection of the subject. In its classical, nineteenth-century form, science ‘sutures’ the subject that it nevertheless implies as a function of an essentially mechanical, deterministic, de-subjectivized world of natural forces. Or at least until Kurt Gödel fatally undermined the mathematical basis of science by demonstrating that formal systems are necessarily either inconsistent or incomplete (see Kauffman, 2001, p. 107). Lacan, of course, was quick to see that Gödel’s idea about the ability of integers to represent sets that could represent further sets of integers was equally true of signifiers in the sense that any ‘supposed set of signifiers can never be complete’ (see Fink, 1995, p. 29). There is always excess or deficiency in language, aporias produced by a certain formula which function as its real cause.

It was pre-eminently in the nineteenth century that science gave up on the cause and the subject, finding efficacy in the economic efficiency of its technical applications. The logical problems involved with the principle of sufficient reason and the infinite regress that it implies – every cause must have a cause – or the inherent teleology of a final cause, a process determined by its form, or a means judged by its end, was left to the theologians. Similarly, contingency or chance played no part in science except insofar as it might become incorporated as a statistical variable in a system of probability that sustained a measurable return. Indeed, physicists and engineers did not largely concern themselves with providing information about the origin or essence of their concepts or objects, electricity for example, any more than biologists or psychologists did about ‘instinct’. Nor was it necessary; it was enough to observe that something worked – and turned a profit.

This was not the case with Nicola Tesla, however, who continued to question the truth of electricity to the end of his life. ‘Day after day I asked myself what is electricity and found no answer’ (Tesla, 1984, p. 284). As the greatest electrical engineer who ever lived, Tesla was of course well aware of the physics of electricity and electromagnetism, the idea of charged particles, electrons and protons circulating a nucleus, but he clearly found such definitions inadequate and unsatisfying. Certainly, insofar as we depend upon the cheap, efficient and ubiquitous flow of electricity, Tesla is increasingly regarded as the inventor of the modern world of the twentieth century (see for example Nye, 1992 and Schwartz Cohen, 1997). He was famously the inventor of the AC polyphase system and the induction motor that enabled, after years of failure by Edison’s systems that relied on direct current, the efficient electrification of New York, its illumination, and the electricity-driven mechanization of the second industrial age. Further, among many other inventions, some yet to be realized, Tesla is now credited with the invention of modern radio (before Guglielmo Marconi), X-rays (before Wilhelm Röntgen), radar (forty years before its use in WWII), robotics, artificial intelligence, electric vehicles and particle beam weapons; he posited the existence of cosmic rays (before Victor Hess and Theodor Wulf), and his ‘Magnifying

² As Karl Popper (1959) famously contended, the history of science is a continuum of conjectures and refutations.

Transmitter', a huge tower at Wardenclyffe on Long Island, promised the conduction of free energy throughout the globe, the wireless transmission of images, text and speech in an individuated and secure way that anticipated the principle of the internet and the world wide web by nearly a hundred years. Indeed, Tesla liked to insist that he was not so much an inventor of objects and devices but a 'discoverer of new principles', a genuine scientist. (O'Neill, 1944, p. 2)

Indeed, with Tesla there could be no better example of the 'fecundity of science', but could he also be described as a 'successful paranoia'? In this essay, I want to argue that he could in the sense that in his science he did not give up on the object cause of his knowledge nor of his own position as the subject of his inventions – indeed his inventions were the means by which Tesla created and realized himself as a subject. In 1919 Tesla published a series of articles under the general title of *My Inventions* for the *Electrical Experimenter* magazine, edited by Hugo Gernsback (Tesla, 2011). These articles are curious because along with a wealth of scientific and technical information, they contain a high degree of intimate 'psychological' detail that Tesla regarded as equally indispensable to his readers for their understanding of the nature of his inventions. In these articles Tesla underscores, on the one hand, that as a man of science he has an entirely materialist and mechanistic view of life, claiming to be 'merely an *automaton* endowed with power of movement' (2011, p. 11). Yet on the other hand, the memoirs continually draw attention to a life full of 'miraculous' events (p. 22), 'astounding' discoveries (p. 82), achievements and abilities, 'inexplicable' occurrences (p. 12) and 'extraordinary experiences' (p. 19), 'phenomena strange and unbelievable' (p. 15), particularly where they concern bodily events and 'mysterious' (p. 34), heightened faculties of thought and perception.

In this essay, I want to argue that the material cause of Tesla's inventions can be found in an event of the body, what Lacan calls a missed encounter with the real, (Lacan, 1986, p. 53) that became encoded in his electrical inventions. As such, they can be regarded as an example of a prosthetic system that symbolizes and regulates jouissance, thereby compensating for foreclosure from the Name of the Father, Lacan's famous formula for psychosis. The Name of the Father is the phrase that Lacan uses in his teaching of the 1950s to describe the function of the signifier to locate the position of the subject and ground the symbolic order through the promise of meaning. That it is named after the father is simply a historical contingency; any signifier can function in this way so long as one believes in it – 'Woman', for example. As Freud's case studies continually show, belief in the father is a neurotic symptom; furthermore, the impact of a signifier such as the Name of the Father that is for Lacan the material cause of the (neurotic) subject is rejected by both science and psychosis, as can be seen in nineteenth century scientific texts, and of course in the *Memoirs* of Daniel Paul Schreber (2000). In the wake of the triumph of scientific discourse in conjunction with capitalism, contemporary society no longer believes in the Name of the Father, and consequently Lacan abandoned the notion in his later teaching in favour of other forms of stitching the subject into the rings of the Borromean knot that represents the Imaginary, Symbolic and the real (ISR) that together constitute 'the structure of the Real' (Lacan, 1999, pp. 132-133). But throughout his teaching, from Seminar II to XX, Lacan contended that 'the world of the symbolic is the world of the machine' (Lacan, 1988, p. 47), predicting to his students in 1972 that 'from now on you are, and to a far greater extent than you can imagine, subjects of gadgets or instruments – from microscopes to radio and television

– which will become elements of your being’ (Lacan 1999, p. 82). Not only do most of these gadgets and instruments owe much to Tesla’s innovations, he also explored how they might function as elements of one’s being. By way of illustration, in what follows I will discuss two of Tesla’s inventions: the Rotating Magnetic Field that is the basis for the AC induction motor and the Magnifying Transmitter in the context of Tesla’s own accounts of their genesis in *My Inventions* (2011). I will suggest that it was through these electrical inventions in particular that Tesla managed to design a form of subjectivation that enabled him to tie together ISR, and disclose the efficacy and coherence of knowledge and delusion. In so doing Tesla’s inventions perhaps point the way towards the delivery of science as ‘a successful paranoia’. And further – assuming we grant this terminology any kind of theoretical efficacy – the re-incorporation of psychoanalysis as a discipline in a redefined idea of science.

The Coherence of Knowledge and Delusion

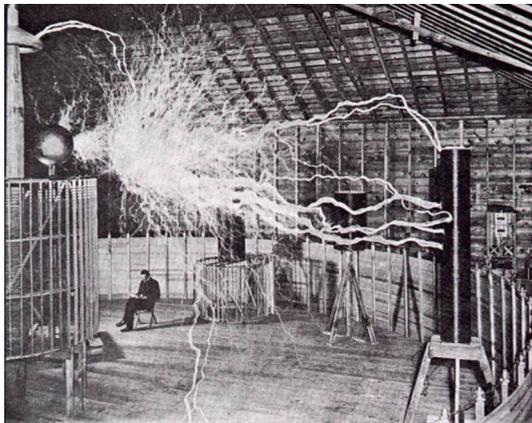


Figure 1

Tesla in Colorado Springs

In 1939, just four years before his death, Nikola Tesla reflected on his first encounter with the idea of electricity in a letter dedicated to Pola Fotitch entitled ‘A Story of Youth told by Age’ (Tesla, 1984, pp. 283-285). In the story, Tesla is a child of about three years old whose closest companion and playmate was the family cat called Macak. Eighty years later, Tesla recalled that it was the dusk of a very cold, dry evening and

I felt compelled to stroke Macak’s back. Macak’s back was a sheet of light and my hand produced a shower of sparks loud enough to be heard all over the place. My father was a very learned man, he had an answer for every question. But this phenomenon was new even to him. Well, he finally remarked, this is nothing but electricity, the same thing you see in trees in a storm. My mother seemed alarmed, stop playing with the cat, she said, he might start a fire. I was thinking abstractly. Is nature a gigantic cat? If so, who strokes it’s back? It can only be God, I concluded. You may know that Pascal was an extraordinarily precocious child who attracted

attention before he reached the age of six years. But here I was, only three years old, and already philosophizing!

I cannot exaggerate the effect of this marvelous sight on my childish imagination. Day after day I asked myself what is electricity and found no answer. Eighty years have gone by since and I still ask the same question, unable to answer it. Some pseudo scientist of whom there are only too many may tell you that he can, but do not believe him. If any of them knew what it is I would also know and the chances are better than any of them for my laboratory and practical experiences are more extensive and my life covers three generations of scientific research (Tesla, 1984, p. 284).

This is a long quotation but it is important to include it all because the main elements that concerned Tesla's life and work are outlined here, including his relation to his parents, to God, nature and of course the central enigma represented by electricity that fascinated him throughout his life. This enigma, that is associated here with the surprise and excitement of the electrifying experience with Macak is also related to the conditions of his birth, as they came to be known to him through family legend (O'Neill, 1944, p. 6). While the effects of stroking the cat may have been the first time Tesla came upon electricity as an idea proffered by his father, it was not his first encounter with the phenomenon. According to his mother and her midwife, Tesla was born on the stroke of midnight between 9th and 10th July 1856 during a violent electrical storm. The well-known story holds that midway through the birth the midwife declared the lightning a bad omen, suggesting he would be 'a child of darkness', to which his mother replied: 'No. He will be a child of light' (Cooper, 2015, p. 22). Despite his legendary eidetic memory, Tesla could not personally testify to the truth of the story since he was busy being born, but he nevertheless refers to it in the speech he gave on the occasion of his being presented the Edison Medal at the Annual Meeting of the American Institute of Electrical Engineers on May 18, 1917. This was one of the very rare occasions that his genius was publicly acknowledged. Tesla died in The New Yorker Hotel in January 1943 penniless and virtually unknown. In his acceptance speech, however, on this grand occasion in 1917, Tesla refers to some of the autobiographical information that he would later publish in *My Inventions* in 1919. Claiming to have no birthday because he was born on the stroke of midnight, Tesla suggests that 'something must have happened' at the moment of his birth because when he was born his heart beat on the right side of his body, setting off a train of strange body phenomena that affected him throughout his life and which he relates in detail in his autobiographical accounts. In his speech, he describes how his heart would subsequently beat on both sides, only to return later in life to the right. Clearly referring to the dramatic intervention of the electrical storm, Tesla repeats that 'something that was quite unusual must have happened at my birth [because] my parents destined me for the clergy then and there' (Tesla, 1984, p. 186). Concerned that he should be a child of light rather than a child of darkness, Tesla's mother was of course referring to the light of God not that of the arc lamp or the fluorescent and neon

bulbs for which Tesla is now famous. Nevertheless, the story brings into conjunction in a relation of opposition and equivalence dimensions that are both miraculous and scientific. Tesla writes in *My Inventions* that the thought that he ‘was intended from [his] very birth for the clerical profession...constantly opprest [sic] me’ (Tesla, 2011, p. 7). Indeed, it would take his near death through cholera at the age of fourteen for his parents to consent, at his insistence, for him to give up the clergy for a career in engineering.

In the anecdote concerning his first contact with the notion of electricity, the ‘shower of sparks’ that betrayed the strange force of nature seems to be the spontaneous expression of his identification with and love for Macak. Tesla calls the animal the ‘fountain of his enjoyment’, exclaiming on the great ‘depth of affection’ of their ‘mutual love’ (Tesla, 1984, p. 283). Tesla’s parents, present at the scene, frame the spectacular and alarming experience and occupy positions in the anecdote that also structure his autobiographical writings. His mother, though illiterate, is said to be one of a line of great inventors with the kind of high intelligence and capacity for work that Tesla credits himself. Meanwhile, his father’s support is granted rather fainter praise. ‘Altho I must trace to my mother’s influence whatever inventiveness I possess, the training he gave me must have been helpful’ (2011, p. 8). In the Macak anecdote, his mother enunciates the Law, commanding young Tesla to leave the animal alone before he sets something on fire, while his father, initially perplexed, provides the banal reassurance of his ‘learning’, his knowledge – ‘it’s nothing but electricity’.

Tesla’s story, however, shows his younger self to have no intention of giving up on the mystery of electricity any more than he allows himself to be severed from his connection to the cat by his mother. On the contrary, he is quick to assume the position of God, conjuring the power of electricity by imaginarily stroking the ‘gigantic cat’ that is the totality of nature. The delusion of grandeur that is betrayed here and reinforced by Tesla’s claim to be, at three years old, more prodigiously philosophical than Pascal also provides the general tenor of his autobiographical writings even when it plunges to its negative pole in utterances of ostentatious modesty and self-abasement. In his speech to the American Institute of Electrical Engineers, Tesla alludes to the legend surrounding his birth and implies that he was engendered out of time by the miraculous intervention of a lightning bolt that produced an event in his body that anointed him a ‘child of the light’, as named by his mother. Meanwhile, his father seems to have had as much to do with his birth as Joseph the conception of Christ. But as we shall see, it is precisely this locus of delusion, and the inventions that spring from it, that provides the basis for his genuine greatness.

In what follows, it is not my intention to ‘diagnose’ Tesla with psychotic structure on the basis of his writings but rather to discuss him as a symptom of his and our age. In the age of the Death of God, he is a symptom of the powers of invention that may spring from the congruence of knowledge and delusion. In the ‘post-truth’ age, he is a symptom of the necessity of symbolic prostheses and the efficacy of instruments and gadgets to mediate a social bond in the absence of paternal guarantees. While Tesla certainly suffered a number of profound breakdowns, he did not suffer prolonged incapacity or catatonia, but managed on the whole to stabilize his condition in a number of ways. This is not uncommon. ‘Psychosis is an immense continent’, avers Jacques-Alain Miller, ‘look at the difference between a good, fine, muscular paranoiac, who really makes a world for himself and for others, and a schizophrenic
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who can't get out of his room' (2009, pp. 161-162). In fact, Tesla was both of these things: a socially isolated, life-long celibate who made a world for himself and for others. The portrait that Tesla gives of himself in his autobiographical writings in some aspects resembles the picture of classical psychosis given in his contemporary Daniel Paul Schreber's *Memoirs of My Nervous Illness* (1903/2000). In addition, a number of Tesla's 'eccentricities' that have been noted on many occasions in the past including numerous phobias and obsessive rituals that are often associated with obsessive compulsive disorder or autism (see Seifer, 1998, pp. 465-467, Silberman, 2015, pp. 230-231), can also function to stabilize a psychosis. However, these features, along with Tesla's hyper-affection for pigeons that he manifested later in life, are here regarded simply as symptoms, elements that both indicate and help manage a condition conducive to scientific invention in which knowledge and delusion are constantly inter-implicated and exist on the same plane, as if on a Möbius strip. The scientific coherence between knowledge and delusion is constitutive particularly in an epoch when scientific knowledge has lost all connection to the ideas and belief systems inherent to natural languages. Contemporary science takes place entirely in mathematics and code where it produces its own reality. As is evident with the CERN Large Hadron Collider, the job of 'empirical' science is likewise to smash existing reality to smithereens in order to produce new particles, new pieces of reality like the Higgs Boson. Productions of other purely theoretical or fictional (and in that sense, delusional) concepts like 'dark matter' and 'dark energy' will no doubt follow in its train. As psychology gives way to neuroscience, a clear distinction is drawn between sense and the real. Following the reductionists and eliminative materialists, there is no longer any sense in the real, signifiers such as 'belief, desire, pain, pleasure, love, hate, joy, fear, suspicion, memory, recognition, anger, sympathy, intention and so forth' being regarded as 'folk psychological' notions misapplied to the various firings of neural activation vectors (Churchland and Churchland, 1998, p. 3). In the meantime, while science and its technical applications have the power to radically transform the social reality actually lived by human subjects (or the various 'platforms' upon which it is experienced), such subjects have no relation to the production or deployment of this knowledge and power.

To return to the nineteenth century discovery of the coherence between knowledge and delusion, it is possible to make a series of analogies and even homologies between Tesla, Schreber and indeed Freud. For example, while Schreber had a theory of 'divine nerves' by which God would communicate with him through 'rays', Tesla also believed that interplanetary communication could occur wirelessly through the medium of waves. The main difference between Schreber and Tesla in this regard is that Tesla's belief is correct, even if it wasn't achievable at the time. Further, as Freud recognized in his interpretation of Schreber's *Memoir*, 'Psycho-analytic notes on an autobiographical account of a case of paranoia' (1958), Schreber's theory of 'nerve rays' could easily be regarded as analogous to his theory of libido.³ While Tesla did not believe in divine nerve rays, any more than he believed in God, he did believe in cosmic rays that he claimed shattered Einstein's fundamental axiom concerning the

³ Furthermore, when Freud attempted to give a definition to his theory drawn from physics, he uses the analogy of electricity. In 'Project for a Scientific Psychology' (1895), Freud uses the 'conception of a fluid electrical current' in order to give an entirely quantitative account of the 'increase, decrease, displacement and discharge' of libidinal energy.

constancy of the speed of light. Along with cosmic rays, however, Tesla also had a concept of cosmic pain. His discovery of cosmic pain he considered ‘of the greatest moment to human society’ (p. 82). Rather than the Freudian concept of libido, however, Tesla’s cosmic pain looks more like a theory of cosmic jouissance, anticipating the Lacanian notion that retrospectively provides the basis of libido and ultimately displaces it.

The concept of jouissance is developed throughout Lacan’s teaching, but it always retains the sense of excess. That is to say an excess of life, sensation or ‘enjoyment’ beyond the pleasure principle – that is, essentially, pain – more sensation than a body can bear. In the late Lacan, jouissance is rigorously distinguished from energy, or at least energy understood scientifically as a numerical constant that enables work to be done, mechanical or otherwise. Jouissance, in contrast, ‘is what serves no purpose’ (Lacan, 1999, p. 3). Since it is excessive, does no work and serves no purpose, jouissance becomes the negative basis for law and economy. The ‘essence of law’, for Lacan, is to divide up, distribute, or reattribute everything that counts as jouissance’ (1999, p. 3). The law says that life in its traumatic or painful excess must be regulated, equalized and discharged in regular amounts. This relation between excess, law and punishment is evident in Tesla’s theory. He states that he first encountered the ‘astounding truth’ of cosmic pain when he was ‘a very young man’, but considered the disturbing bodily events that he experienced ‘simply coincidences’. However, further reflection over the years enabled a more developed interpretation of the phenomena. Namely, he writes, ‘whenever either myself or a person to whom I was attached, or a cause to which I was devoted, was [unfairly] hurt by others in a particular way...I experienced a singular and undefinable pain which...I have qualified as “cosmic”, and shortly thereafter, and invariably, those who had inflicted it came to grief’ (Tesla, 2011, p. 82). Subsequently, Tesla goes on to give an impeccably scientific account – albeit involving ‘invisible links’ that connect otherwise independent objects and organisms – of how this cosmic system of karmic jouissance operates throughout the universe. The example also illustrates the correlation between schizophrenia and paranoia that is evident in Schreber, and the importance that elementary phenomena have in structuring the delusional interpretations and knowledge-systems that stabilize psychosis. The initially perplexing bodily events that were a feature of Tesla’s younger days, and that provide the basis for his theory of cosmic pain, are equivalent to what Lacan calls elementary phenomena. These phenomena provide the basic structure for the inventions of delusion, as we shall see. First I shall briefly recap on these bodily events and phenomena that Tesla recounts in vivid detail in his autobiographical writings.

Elementary Phenomena and the Tesla Coil



Figure 2

The Tesla Coil

In my boyhood I suffered from a peculiar affliction due to the appearance of images, often accompanied by strong flashes of light, which marred the sight of real objects and interfered with my thoughts and action... When a word was spoken to me the image of the object it designated would present itself vividly to my vision and sometimes I was quite unable to distinguish whether what I saw was tangible or not. (Tesla, 2011, p. 9)

I never had any control over the flashes of light to which I have referred. They were perhaps my strangest experiences and inexplicable. They usually occurred when I found myself in a dangerous or distressing situation or when I was greatly exhilarated. In some instances I have seen all the air around me filled with tongues of living flame (Tesla, 2011, pp. 11-12)

These luminous phenomena still manifest themselves from time to time, as when a new idea opening up possibilities strikes me (Tesla, 2011, p. 12).

As I uttered these inspiring words the idea came like a flash of lightning and in an instant the truth was revealed (Tesla, 2011, p. 40).

Lacan's theory of elementary phenomena that he discusses in Seminar III (1993), arise as an effect of the foreclosure of the Name-of-the-Father and the 'hole' or void that is consequently disclosed in the Other. This 'hole' appears when the subject is confronted with the absence of the paternal function, and the elementary phenomena irrupt partly in an attempt to plug the gap. The effects of these irruptions however can be highly disturbing since they are also distressing symptoms of unregulated, invasive jouissance that in Tesla's case caused 'great discomfort and anxiety' (2011, p. 9). Sometimes they are described as 'agony' (p. 19), or 'torture', causing a sensation that 'my brain had caught fire' (p. 12). Essentially they function as enigmatic, meaningless signifiers – 'strange and inexplicable' – that place under question the ability of the system of signification to produce or guarantee meaning. Classically, the onset of psychosis is characterized by a profound sense of perplexity or strangeness that is reinforced by the incursions of these phenomena. As such they operate as 'the signification of signification' in an empty reflexivity that symbolizes the symbolic

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order's lack of cornerstone or ground. Freud comments on a similar set of elementary phenomena that occurred at the onset of Schreber's psychosis in the form of hallucinations and body phenomena. He notes that 'a high degree of hyperaesthesia was observable – great sensitivity to light and noise – later the visual and auditory illusions became more frequent, and, in conjunction with coenaesthetic disturbances'.⁴ For Lacan, such hallucinations and traumatic disturbances are delusional interpretations of the hole in meaning or the signified that themselves demand interpretation, thereby potentially setting off 'a cascade of reworkings of the signifier from which the growing disaster of the imaginary proceeds, until the level is reached at which signifier and signified stabilize in a delusional metaphor' (Lacan, 2006, p. 481). For example, Schreber's elementary phenomena became developed into a network theory of divine nerve rays that enabled him to communicate with God. God's selection of Schreber and his invasive plan to impregnate and re-populate the world further conditioned 'the idea of grandeur' that is the fundamental form of paranoia that eventually emerges to stabilize schizophrenic symptoms (Lacan, 2006, p. 456). In Tesla's case, we have already noted his elaborate theory of 'cosmic pain', but that is just one among a multitude of theories, designs and inventions that similarly condition the delusion of grandeur that colour his writings. These designs – many of which were ultimately successful or accurately prophetic – will also involve transforming the world in a way equally profound as that envisaged by Schreber's God.

It is important to stress, then, that while cœnaesthetic symptoms and disturbances are events of the body, they are also signifiers. Indeed, they operate as signs in CS Peirce's sense that they represent something for someone. They imply the existence of a subject, since they appear uniquely to that someone, though what they represent is unknown. They therefore locate perplexity at the place where the subject should be. They are evanescent signifiers, like meteors, that are unsupported by the signifying battery that would make sense of them. Outside sense, they emerge from the real of jouissance, indexing the place of the subject as a site of truth through the enigma that they present. Accordingly, as Tesla reiterates, the 'luminous phenomena' and 'flashes of light' flare up in moments of scientific insight and revelation. Of course, this empty site is consistent with the structure of the subject generally; it too is an arena clear for a delusion of grandeur to develop in moments of exhilaration, a delusion that is incomplete without its complementary polar opposite, the humility that every so often will confess 'I am nothing'; 'I am useless'. Tesla's supreme moment of exhilaration was illuminated, he says, by 'a flash of lightning' as 'in an instant truth was revealed' (Tesla, 2011, p. 40). This was the idea of the Rotating Magnetic Field. While it is a commonplace, even a cliché, for a great idea to be signaled by a flash of lightning, for Tesla it has much more significance and reality given his personal myth and career as an electrical engineer. In Tesla's family legend, the electrical storm at the time of his birth provides the elementary signifier of the central mystery of both the phenomenon of electricity and the enigma of existence. Unlike the 'S₁' of the paternal or master signifier, this signifier does not represent a subject for another signifier, but rather points to the absence of a signified, 's₀', the empty site primed for the revelation of

⁴ 'Cœnaesthetic' symptoms remain classic signs of the onset of schizophrenia according to the *International classification of disease* (World Health Organization [ICD-10], 1992). See also Redmond, 2014. Typically, these symptoms are limited to short psychotic episodes of the type demonstrated by both Schreber and Tesla.

truth. For any revelation of truth, however, there has to be some set of phenomena that provides the stuff of interpretation, some pool of knowledge, 'S₂'. Because the symbolic register is empty, however, it absorbs the structure of the imaginary, *a-a'*, from which the ambivalence of a delusional fantasy develops as in paranoia or even a basic delusion of grandeur. The imaginary register is developed partly from Lacan's mirror stage that 'situates the agency of the ego, prior to its social determination, in a fictional direction' (Lacan, 2006, p. 76). The stability of the 'I' is initially suggested visually in relation to a mirror reflection that provides an image of bodily unity. But given that it is actually just an inverse reflection, the image also functions as the basis of an alter ego or rival that may threaten that unity. The imaginary register is a very unstable world in which identifications and affects are continually oscillating between two poles. Love, affection, empathy, attraction can rapidly switch into hatred, rivalry, antipathy and repulsion. Jacques-Alain Miller (2005, p. 25) schematizes the relations between delusion and knowledge in the following way:

$$\begin{array}{ccc}
 S_1 & & S_2 \\
 \hline
 s_0 & & \Delta \\
 & & a - a'
 \end{array}$$

With Tesla we could translate this as:

$$\begin{array}{ccc}
 \text{flash of light (S}_1\text{)} & & \text{electricity (S}_2\text{)} \\
 \hline
 \text{enigma (s}_0\text{)} & & \Delta \\
 & & + / - \quad (a - a')
 \end{array}$$

This empty site of the enigma (s₀) devoid of a subject (\$) has two poles (*a - a'*) – a plus and a minus – just like an electromagnet. But while the neurotic subject is defined by a master signifier ('S₁' in Lacan's notation) that functions as a conductor to the Other (S₂) thereby providing the resistance (or repression) necessary to regulate the flow of interpretations, the psychotic's 'libidinal energy', in Freud's terms, circulates around the two poles creating an unhindered state of ambivalence that can charge a frenzy of interpretative delusions (S₂) as intensely as a Tesla coil (see Figures 1 and 2). Another of Tesla's famous inventions, the coil could produce great sparks and flashes of light. At first in 1891 these would be sparks of about five inches, but then 'in 1900 [he] obtained powerful discharges of 100 feet and flashed a current around the globe'. He was reminded, he recalls, 'of the first tiny spark I observed in my Grand Street laboratory and was thrilled by sensations akin to those I felt when I discovered the *rotating magnetic field*' (Tesla, 2011, p. 51).

Goethe's Faust and the Rotating Magnetic Field

The discovery came after Tesla suffered a 'complete nervous breakdown' in which he experienced some of his most intense cenaesthetic disturbances, enduring symptoms that none of his doctors and medical consultants could comprehend (Tesla, 2011, pp. 31-40). The attacks occurred at the end of his college years at the Polytechnic School in Graz, Austria, apparently as an effect of his struggle to meet the challenge posed by his Physics Professor Poeschl concerning the problem of utilizing electricity without the inefficient use of a commutator.

Electricity is quite erratic, if not chaotic. The notion of a ‘flow’ or ‘current’ of electricity is a metaphor introduced from the idea of water, and the phrase ‘alternating current’ is a formularization of the problem of the rapid and erratic changes normally involved in attempts to direct electrical force. In order to give electricity direction, a commutator that is comprised of a series of little wire brushes is deployed to send it in one direction in order to produce a ‘direct current’. The problem is that a commutator does not exert uniform control over the force under its direction and tends to spark all over the place. As Edison and his engineers at Menlo Park discovered, it is difficult and very expensive to get electricity to travel to any distance through the use of ‘DC’ devices. Tesla’s discovery of how to utilize alternating current through the production of a rotating magnetic field circumvented all these problems and enabled the cheap, effective and rapid electrification of the world – once he and Westinghouse had eventually prevailed in the vicious AC/DC ‘current wars’ of the 1880s.

According to Tesla, his physics Professor Herr Poeschl was scornful of his own ambition for using alternating current, humiliating Tesla by delivering a whole lecture on the subject, detailing at length its impossibility, concluding that it would involve nothing less than the re-orientation of one of the great forces of nature, like gravity (Tesla, 2011, p. 37). Tesla’s public humiliation provoked a challenge to his rival that would become all consuming. For Tesla, solving this problem would be ‘a sacred vow, a question of life and death’ that threatened to result in the latter (2011, p. 39). ‘My alternating system of power transmission came at a psychological moment’, he writes (p. 56); indeed, Tesla suffered a psychological or ‘nervous’ breakdown in which all the dimensions of his perceptual field collapsed in upon him. In particular, the sensitivity of his audition became extraordinary: ‘I could hear the ticking of a watch with three rooms between me and the timepiece. A fly alighting on a table in the room would cause a dull thud in my ear. A carriage passing at a distance of a few miles fairly shook my whole body’ (p. 38). Of all the uncontrollable somatic phenomena, most difficult to bear was his erratic pulse ‘that varied from a few to two hundred and sixty beats’ making all the tissues of his body twitch and tremor (p. 39). In his own allusion to the founding event of his birth, Tesla claims that the electric storm made his heart switch from different sides of his chest, and indeed the erratic pulse and body tremors seem to suggest that Tesla’s body was directly experiencing the problem of alternating current. The latter had hitherto ‘presented what seemed an insoluble problem because the magnetic field produced by alternating currents changed as rapidly as the current. Instead of producing a turning force they churned up useless vibration’ (O’Neill, 1944, p. 42). But it would be words – literature – that enabled Tesla to solve the problem and alleviate his symptoms. Out for a walk in the early evening with a friend in the City Park, Tesla gazed at the setting of the sun whose rays he had found so oppressive and began citing lines from Goethe’s *Faust*. The sunset reminded him, he recalls, of Goethe’s famous lines:

*Sie rückt und weicht, der Tag ist überlebt,
Dort eilt sie hin und fördert neues Leben.
O daß kein Flügel mich vom Boden hebt
Ihr nach und immer nach zu streben!*

[The glow retreats, done I the day of toil; / It yonder hastes, new fields of life exploring; Ah, that no wing can lift me from the soil, / Upon its track to follow, follow soaring!]. (quoted in Tesla, 2011, p. 40).

Perhaps it was the paradox of double movement evoked in these lines as the old circadian notion of time gives way to the impression of the forward march of modernity that proved inspirational. The sun is advancing in time as it explores ‘new fields of life’ even as it makes its eternal circuit around the earth. Of course, Tesla knew perfectly well that the earth orbited the sun by the force of its gravity, but perhaps this idea of circular motion could be galvanized for a similar magnetic power of projection. The *mise-en-scene* of Goethe’s dramatic poem would also have appealed deeply to Tesla given that its general theme opposes religious observance and devotion to the ambitious pursuit of scientific knowledge, echoing his own conflict between a career in the clergy and engineering. Indeed, the lines that immediately precede the sunset offer Faust’s ruminations on the frustration of drowning in a sea of error, the uselessness of received wisdom and the importance of a desire for the unknown: ‘*O glücklich, wer noch hoffen kann / Aus diesem Meer des Irrtums aufzutauchen!*’ ‘*Was man nicht weiß, das eben brauchte man, / Und was man weiß, kann man nicht brauchen*’ (Goethe, *Faust* 1, lines 1064-1067). Imaginary identification is further encouraged through the friendship and rivalry of Faust and his companion Wagner. As Goethe scholar Harold Jantz writes,

The difference between Faust and Wagner lies in their drives [...] The drive of Wagner is centripetal, striving toward containment, toward the encompassing and ordering of accumulated knowledge...The drive of Faust is centrifugal, striving toward expansion, the conquest of new realms of knowledge and insight (Jantz, 1951, pp. 106-107).

Tesla’s central insight in the production of the rotating magnetic field was to produce and magnetically harness two such ‘drives’, two circuits carrying the same frequency of alternating current ninety degrees out of phase with each other both in position and timing (see Figure 3). Each phase generates its own positive and negative polarities in an alternating sequence such that the armature is able to rotate wirelessly in space at high speed in the centre of the magnetic force field (for a more detailed explanation see O’Neill, 1944, p. 43; Seifer, 1998, pp. 22-23).

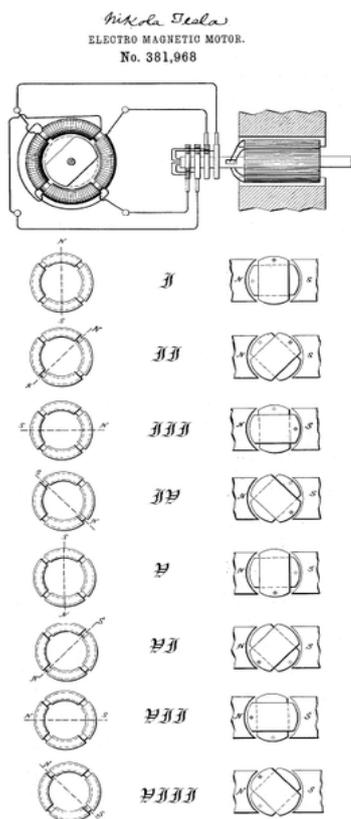


Figure 3

Nikola Tesla's 'Electro Magnetic Motor'

Given Freud's interest in the analogy between electricity and libidinal energy, it is interesting to reflect that it was in the context of his work on Schreber and psychosis that Freud also introduced a two-phase system in which libido alternately 'catheted' to the positive and negative poles of an object and ego. Freud developed this dual-phase system in his paper 'On Narcissism' (1914) which also informs significantly Lacan's notion of the imaginary register. Here, the ego is an effect of the objects *a-a*' that are similarly positive and negative polarities magnetized by the drive as it circulates around the *Vorstellung* or chain of signifiers and images that offer themselves up for identification and differentiation, empathy and antipathy, thereby producing a force field of ambivalence. It takes the introduction or rather 'induction' of Lacan's virtual *objet petit a* in the midst of this field for it to produce the 'alternate cathexis' (AC) motor of desire. That is to say, the *objet a* would operate like a receiving magnet or motor armature which by means of induction would turn jouissance into a motor of desire whether or not the charge was positive or negative.

Tesla's AC induction motor formed the template for a multitude of inventions that flowed in 'an uninterrupted stream' for the next few years, ready to populate and electrify the forthcoming century with a new generation of automatic desiring machines. One astonishing, potentially world-changing vision however would quite literally tower over Tesla's future horizon in the early years of the twentieth century.

Wardencllyffe and the Erection of the Gnomon

The 'Magnifying Transmitter'. This is Tesla's best invention – a peculiar transformer specially adapted to excite the Earth, which is in the transmission of electrical energy what the telescope is in astronomical observation. By the use of this marvelous device he has already set up electrical movements of greater intensity than those of lightning and passed a current, sufficient to light more than two hundred incandescent lamps around the Globe (Tesla, 2011, p. 62).

Somewhat strangely writing in the third person, Tesla excitedly explains to the readers of the *Electrical Experimenter* his plans for the 'magnifying transmitter', the main element of five key inventions that comprised the 'World-system'. This was a wireless telegraphy and power plant that Tesla began to build at Wardencllyffe on Long Island in 1900 (see Figure 4). By far the most ambitious of Tesla's projects, the principles for which he researched for two years in Colorado Springs, the world system proposed to deliver free energy by pulsing 100 million volts around the world. At the same time, it would transmit signals, messages and characters wirelessly to anyone anywhere equipped with 'an inexpensive receiver, not bigger than a watch' (Tesla, 2011, p. 62). Distance would be 'absolutely eliminated' (p. 61), 'annihilated' in a repetition of his auditory symptoms. Signals would be 'tuned' and 'refined' such that each individual would be able to receive, privately and securely, speech or music anywhere on land or sea (p. 62). What Tesla envisaged in 1900 was not just a free source of global energy, but a planetary (and inter-planetary) telecommunications center 'more efficient than the combined forces of today's radio, television, wire service, lighting, telephone, and power systems' (Seifer, 1998, p. 263). To which we could also add the internet and world wide web before the advent of digital technology. Tesla explained the principle of energy conduction with the example of a giant tuning fork. The earth is responsive to electrical vibrations of definite pitch; it could therefore be used as a giant natural conductor. Spurred on by his rivalry with Marconi, Tesla envisaged radio waves and electrical vibrations being generated and pulsed through a 'skyscraping tower six hundred feet high, designs for which he scratched out on his fancy Waldorf-Astoria stationery' (Seifer, 1988, p. 263). Cost and other constraints would eventually reduce the size to 187 feet, but the design remained essentially the same, including at the top a 'spherical terminal about 68 feet in diameter' (Tesla, 2011, p. 64). At the tip of the erection was an aperture out of which 'spewed forth a pyrotechnic eruption', 'a vivid display of light several nights [a week]' that could be seen as far as the shores of Connecticut' (Seifer, 1998, p. 292).



Figure 4

Tesla's 'Magnifying Transmitter' Wardencllyffe Tower, Long Island, NY

For Lacan, the life of the non-psychotic subject is illuminated by a 'phallic signifier' (ϕ), that is grounded by the Name-of-the-Father. The 'phallus' signifies the value that transcends the desire of the mother for the child. It thereby gives definition through its very difference to the child, and indeed the definition of meaning for the child. The phallic signifier arises as an effect of 'symbolic castration' ($-\phi$). However, it is precisely this symbolic castration that is refused in psychosis. The phallus does not exist and the desire of the mother remains an enigma (s_0). In a non-psychotic subject, the phallic signifier encapsulates through the operation of metaphorical meaning the 'loss' produced by symbolic castration. According to Lacan, the subject is defined by his or her relation to this phallic signifier that is 'destined to designate meaning effects' (Lacan, 2016, p. 579), since it operates in different ways as both the signifier of jouissance and the signifier of the desire of the Other. In the case of the former, the signifier is imbued with the jouissance that is repressed or barred in the subject; in the case of the latter, it 'provides the ratio [*raison*] of desire', the standard exemplum and measure of the Other's system of value. Culturally and socially, in pre-modern kinship systems, this would be the daughter who is the object of exchange in those dynastic marriages that form the basis of the social bond.

In the imaginary register, the unified image of the body in the mirror (*a*) operates in this 'phallic' way where it produces a frisson of narcissist enjoyment that supports its function as a signifier that hooks the subject onto the symbolic order. Again, this is precisely what is at issue in psychosis where this signifying function is missing and the imaginary is radically unstable (*a-a'*), oscillating across the polarities of positive and negative identifications. The process of stabilization in psychosis, then, involves the attempt to produce – in oneself or of oneself – an imaginary phallus that can take on

this signifying function and produce relatively stable effects of meaning. As with the 'flutter of jubilation' that the child experiences when he or she perceives the unity of her body image, so meaning is similarly apprehended in an experience of enjoyment for the psychotic. For Schreber, memorably, the idea of this meaning and enjoyment is summoned in the suggestion of how delightful it would be to submit to intercourse as a woman. This subsequently becomes the basis of Schreber's delirious system in which God transform him into a woman in order to 'redeem the world and restore it to its lost state of bliss' (Freud, 1958, p. 475). In the Lacanian orientation in psychoanalysis this is known as the 'push-to-the-woman', where the woman (or daughter) equals the phallus, the signifier of the Other's desire in the elementary structures of kinship discussed by Claude Levi-Strauss.

While there appears to be no explicit 'push-to-the-woman' in Tesla's case, there is nevertheless evidence of a similar production of a 'phallic' body at the expense of the jouissance associated with the organ. Tesla was by all accounts a life-long celibate who details his success in abstinence and self-control in *My Inventions* (pp. 19-20). Elsewhere he claims to have 'never touched a woman' (Petkovich, 1927, p. 4). Indeed, this feature is remarked upon at some length by his biographer John O'Neill, someone who knew Tesla as well as anyone. O'Neill claims Tesla 'sacrificed love and pleasure...limiting his body solely to serving as a tool of his technically creative mind' (1944, p. 3); he 'eliminated' love and even spiritual companionship, maintaining a sovereign isolation 'into which no woman and no man could enter'; content to seal himself off in 'self-sufficient individuality from which all sex considerations were completely eliminated; the genius who would live entirely as a thinking and a working machine' (p. 4). And yet this 'machine' wanted to be a 'tool' for facilitating the instantaneous communications of peoples around the world, 'abolishing distance', introducing his own measure of space and time, promising to turn the globe into a village ten years before Marshall McLuhan was a gleam of light in his mother's eye. The distinctive shape of the Wardenclyffe tower, the magnifying transmitter that would have powered Tesla's 'internet', needs no further comment except that it is the most startling manifestation of a structure that receives repeated iterations throughout Tesla's designs and inventions, fetishes, phobias, rituals and even his relation to his body.

In certain neurotic or perverse subjects where the phallic function has failed to become fully effective or castration disavowed, various phobias and fetishes may be deployed in its place. Tesla reports on a number of these: he won't touch anyone's hair, he's revolted by peaches (presumably because of the fur), the sight of pearl earrings 'would almost give me a fit'; at the same time, he's fascinated by bracelets, the glitter of crystals (Tesla, 2011, p.13). These are all classic Freudian examples of the fear and disavowal of castration. For Lacan, they are examples of the '*gnomon* that constantly indicates the site of truth ...Revealing that the phallus itself is nothing but the site of lack it indicates in the subject' (Lacan, 2006, p. 745).

The gnomon is a Euclidian geometric concept that can be produced in the case of the square through tracing a diagonal and extending it vertically through erecting the diagonal line. As Jacques-Alain Miller notes, it is this diagonal which counts, because it is in itself already an index (Miller, 2002). What further counts is that it thus becomes the point of stability or 'general principle of construction' through which the square can be extended to various levels vertically or horizontally (see Figure 5)

(Miller, 2005, p. 7).

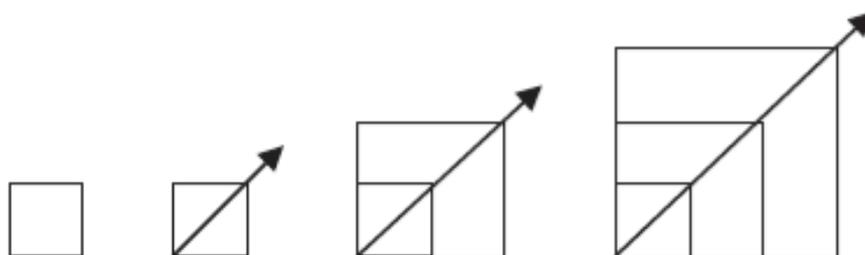


Figure 5

Gnomonology

The gnomon is also another name for the sundial, which from its position at a right angle on the horizon affords the opportunity to tell the time relative to the position of the sun's rotation around the earth. As such, as we have seen, it conforms to the principle of the rotating magnetic field. But to the 'gnomonic' example of the sundial could be added the lightning rod and the tuning fork both of which are operative in the principle of Wardencllyffe tower. All are inventions or metaphors for the stabilization and conduction of oppressive or erratic rays, waves and vibrations, the disturbing elements of Tesla's elementary phenomena. They are also metaphors for Tesla's own body. For while certainly, unlike Schreber Tesla had no interest in his body conducting the amorous designs of God, he was famous for spectacular shows in which he would pass high voltages of electrical current through his body. This was not just for the practical purpose of convincing a public of the safety of alternating current – a public terrorized by Edison's movies of the electrocuted deaths of animals that resulted in the first execution by electric chair. Tesla passionately believed in the therapeutic power of electricity, writing numerous articles on the topic. Indeed, when JP Morgan withdrew funding for the Wardencllyffe project – seeing no financial benefit in the production of free energy – Tesla once again began to suffer nervous collapse. By this time, however, he knew how to effectively self-medicate. He took 'electric baths' in which he charged his body in order to repel foreign particles (Seifer, 1998, p. 413). And he told *The New York Times* that 'I have passed [150,000 volts]... through my head and did not lose consciousness, but I invariably fell into a lethargic sleep some time after' (Seifer, 1998, p. 325).

Postscript: Becoming Horse, Becoming Pigeon⁵

Wardenclyffe tower began to be dismantled in 1917, and more or less about this time, according to the biographical accounts, Tesla developed his passion for the pigeons of New York. If there is one thing about Tesla that defines him as a ‘mad scientist’ it is the story that he married a pigeon. There was no formal ceremony, but Tesla does relate that of the thousands of birds he fed over the years, there was a particularly beautiful one that would fly to him whenever he wished. ‘I loved that pigeon as a man loves a woman, and she loved me. As long as I had her, there was purpose to my life’ (O’Neill, 1944, pp. 316-317).

It would take another essay to trace the trajectory of Tesla’s affinity with animals, particularly birds. Macak the cat provides Tesla with his first memory of electricity, but the most powerful and traumatic encounter with an animal occurs at the beginning of *My Inventions*, with the magnificent yet febrile family horse who was ‘responsible’ for unseating his father and killing his brother in separate falls (Tesla, 2011, p. 6). The brother is described as an alter ego and rival for his parents’ affections, whose ‘attainments made every effort of mine seem dull in comparison’ (p. 6). Consistently throughout *My Inventions* Tesla seeks to ‘harness’ ‘the forces of nature’ (see for example p. 5, p. 22, p. 25, p. 31), as he seeks to turn horse power into electrical power, or the power of the vacuum. An agent of death and the unseating of the paternal principle, the horse is another signifier of the lack in the Other that is more fundamental than the enigma of the mother’s desire that can be seen as merely its iteration – like the two phases that constitute the rotating magnetic field of the AC motor. In Tesla, the enigma of the lack functions as the object cause of desire that is signified in events of the body, in flashes of light that relate to the fundamental loss that occurs mythically at birth: this is the fall into the world of signifiers, into the being of sex and death. In Seminar XI, Lacan writes, ‘imagine that, each time when at birth the membranes are broken, something - the lamella - flies away and is lost forever. This loss is nothing less than the loss of pure life in itself, of immortality’ (Lacan, 1986, pp. 197-198). In Tesla’s family legend, this loss is illuminated in the flash of lightning that announces his birth as ‘a child of the light’. The mother’s ambiguous annunciation both endorses and substitutes for the loss of the

⁵ I am aware that this essay could be productively re-written according to the theoretical revisions to Lacan’s theory of psychosis made by Gilles Deleuze and Félix Guattari. These revisions emphasize the schizophrenic pole of psychosis in which schizophrenia is seen as the symptomatic exception to capitalism and paranoia its defining state. (see Deleuze and Guattari, 1983 & 1988) I have chosen rather to emphasize the importance of paranoia’s stabilizing effect on the schizophrenic desire for knowledge because of its structural, epistemic coherence with contemporary science. Certainly, some of Tesla’s inventions enabled the expansion of capitalism (as they would have socialism, for that matter) but some of them did not – most notably the magnifying transmitter that promised to end capitalism by supplying free energy to everyone on the globe. Not seeing how he could ‘put a meter’ on this free energy, JP Morgan famously pulled the plug. Indeed, Tesla’s ‘paranoia’ left him personally far from suited to capitalism, which exploited his genius ruthlessly and left him penniless. For a ‘gnomonological’ interpretation of the role of the schizophrenic as a ‘principle of construction’ in Deleuze and Deleuze and Guattari, see Wilson, 2016.

continuity of unborn, unsexed, undead eternal life. It can henceforth only be glimpsed in the miracle of electricity, signifier of the life force, libido, drive, jouissance, the light that never goes out.

The pigeons meanwhile find their antecedents not only in the chickens, crows and geese of Tesla's childhood (2011, pp. 26-29), but in a particular bodily phenomenon: a feeling of abnormal lightness. As a child, Tesla believed that his body could become 'richly charged with oxygen' thus rendering it 'light as a cork' so that he 'could leap and float in space for a long time' (p. 13). He even believed that he could transport himself through the air to distant regions of the world (p. 32); but the delusional nature of these hallucinatory experiences was exposed early on when he attempted to fly by leaping from a tall building with the aid of an umbrella (p. 32). He came down with a bump, injuring himself but surviving the fall.

Nevertheless, the experience of abnormal lightness – as if the body were hollowed out of the weight of its organs – gave buoyancy to his enthusiasm for the 'boundless possibilities' of the vacuum. Indeed, in some ways the prototype of the rotating magnetic field was Tesla's youthful idea for a perpetual motion machine that would enable mechanical flight involving a rotating cylinder powered by a vacuum: 'a flying machine with nothing more than a rotating shaft, flapping wings, and – a vacuum of unlimited power!' (p. 32). Another gnomonological principle of construction predicated on Tesla's weightless body, this flying machine would be the first of many that preoccupied Tesla particularly after the destruction of Wardencllyffe: flivver planes, fuel-less planes driven by wireless energy, hovercrafts and hydrofoils, a 'reactive jet dirigible' and other prototypes of the autonomous drones that execute enemies of the state and deliver Amazon goods today. The hollow body and the vacuum paradoxically denote and fill the void of the subject and the lack in the Other. Yet, it is precisely out of this 'hole' or vacuum that Tesla created genuinely new scientific knowledge. As Paul Verhaeghe and Frederic Declercq write, 'the creation of a new signifier or *sinthome*...is only creation insofar as it builds on the lack of the Other, that is insofar as it is a *creation ex nihilo*' (Verhaeghe & Declercq, 2002, p. 14).

Tesla died living on credit in The New Yorker Hotel on January 7 1943. A short while before that winter, Tesla received a final visit from his beloved pigeon. She flew through his open window and stood on his desk. 'As I looked at her I knew she wanted to tell me – she was dying. And then, as I got her message, there came a light from her eyes – powerful beams of light. When that pigeon died, something went out of my life. I knew that my life's work was finished' (O'Neill; see also Seifer, 1998, p. 443).

Author's Biography

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