

The Spiraling Circuit (*Kreislauf*) of Signification: Nietzsche's Ecologic Creativity

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Nietzsche's Thermodynamic Vision

In Nietzsche's notebook from late in his authorial career (1885) he sketches his remarkable view of the world:

And do you really know what 'the world' is to me? Should I show it to you in my mirror? This world: a monster of force, with no beginning and no end, a firm, iron magnitude of force that grows neither larger nor smaller, that does not get expended but only transformed . . . a household without expenses or losses, but also without a growth or income, surrounded by 'nothingness' as by its borders . . . a play of forces and waves of forces, both one and 'many,' increasing here while decreasing there, a sea of forces storming and flowing into one another, eternally changing, eternally flooding back with immense years of recurrence . . . *This world is the will to power—and nothing besides that!* And you yourselves are also this will to power—and nothing besides that! (Nietzsche 1885 cited in Safranski 2002, p. 293-294).

Nietzsche's language in this passage, well rendered in the present translation, generates a hybrid conception of *power* (*Macht*) with clear connections to the natural sciences—specifically the thermodynamics of Clerk Maxwell and Leo Szilard. Consider Maxwell's portrait of thermodynamics, incorporating his famous Demon:

. . . if we conceive a being whose faculties are so sharpened that he can follow every molecule in its course, such a being, whose attributes are still essentially finite as our own, would be able to do what is at present impossible to us. For we have seen that the molecules in a vessel full of air at uniform temperature are moving with velocities by no means uniform, though the mean velocity of any great number of them, arbitrarily selected, is almost exactly uniform. Now let us suppose that such a vessel is divided into two portions, A and B, by a division in which there is a small hole, and that a being, who can see the individual molecules, opens and closes this hole, so as to allow only the swifter molecules to pass from A

to B, and only the slower ones to pass from B to A. He will thus, without expenditure of work, raise the temperature of B and lower that of A, in contradiction of the second law of thermodynamics (Maxwell 1871, p. 308-309).

Nietzsche's passage offers a salient combination of what Maxwell thinks of as entropy and negative entropy. Entropy is defined by the degradation of order toward chaos; negative entropy is the increase of order by the reduction of disorder (chaos). For Nietzsche the two are paired in a cascading river of generation and destruction that ever loops back on itself. His vision is at once scientific and poetic, fusing both in what he called the 'Joyous Science' of Dionysus. Notice that Maxwell, despite his more sober scientific prose, invokes a 'mind' in the metaphoric persona of a 'demon' who is transcendent with respect to—i.e., not itself subject to the entropy of—the thermodynamic system of hot and cold molecules in which it does its sorting. Like Maxwell's critic Leo Szilard, who argued that the reduction of entropy by the Demon must necessarily produce entropy commensurate with the order it created by sorting, Nietzsche contended that the mind—of humanity or of nature (Dionysus)—was *immanent* in the systems in which it operates: from body to biosphere to cosmos. Thus no 'mind,' be it god or demon, could transcend the flux of entropy against which it struggles. This struggle to exist, reminiscent of the *agon* in ancient Greek, was the mark of Nietzsche's immersion in the Heraclitean river of life.

I wish to focus here on what Nietzsche described as the 'circuit' (Kreislauf) of power as it manifested itself in the cosmic cycle of 'Eternal Return' (*ewige Wiederkehr*). I would like to suggest that Nietzsche's idea of power has its origins, characteristically, in ancient Greece and the 'spirit' (*psyche, Geist*) of its

'music' (*harmonia, rhythmos, mousikê*). In Nietzsche's view Greek music was *inverted* and constrained by the *logistikon* or Plato's rational intellect in the *Republic*, and then turned upside down (or right-side up) again by Nietzsche, to form the basis of an 'ecometaphorical' semiotics of power embracing the arts and sciences (White 1998, p. 127). So I propose to argue that Nietzsche envisions an 'ecologic creativity' whose guiding 'daemon' is not Maxwell's Platonic demon or Kant's 'genius' but an 'ecological mind' immanent in the biosphere's networks of communication and exchange: a power out of which a genuinely interdisciplinary model of both artistry and criticism—a model of praxis for cultural studies—may be constructed. Nietzsche's thermodynamic vision also points, I will argue, toward a green ethic for the pursuit of a human-ecological culture, animated by the spirit of music yet imbricated in the revolutionary transformation of the International Division of Labor.

The Music of Nature and Culture

In the *Republic* Plato states clearly the philosophy of music in terms of what

Nietzsche characterizes as 'aesthetic Socratism':

From this [the foregoing argument] you are able to discern that the well formed and the ill formed follow upon the rhythmic and arrhythmic? How wouldn't I?

But the rhythmic and the arrhythmic should follow upon a well formed text, conforming to it, and the opposites will likewise be true, harmonious and the unharmonious [will follow] if in fact the text contains rhythm and harmony, just exactly as we said earlier, but the text does not follow these [rhythm and harmony]. (Plato 2003, Book 3, 3c3-400d3, my translation)

The *logos*, i.e. the ‘word,’ is to reign over the rhythm and melody or harmony in order to make it ‘good’ or, in Plato’s terms, morally suitable for the austere minds of the Republic’s Guardians and the orderly lives of their charges, the people of the polis.

Nietzsche makes his criticism of Plato’s theory clear:

Just as there is certainly a bridge leads from the mysterious castle of the musician into the free land of images [and words]—and the lyric poet walks across it—so it is also impossible to traverse it the other way, even though it should be granted that there are some who imagine that they’ve done it. (Nietzsche 1871, p. 362-363; all translations from the German are my own unless otherwise indicated).

The bridge from music, to image, and finally to word is one way, even if some, like Plato and with him the rationalist, in Nietzsche’s terms the Socratic, European tradition, imagine otherwise. The significance of Nietzsche’s concept of asymmetrical crossing only becomes clear when we understand what Nietzsche includes in ‘music.’ For Nietzschean music is played by a biomorphic and ecological semiotic ensemble of organismic and ecologic players, as in Alice’s famous game of croquet in Wonderland, whose melodies are entwined, like the helices of DNA, to form the syntaxes of nature and culture (Bateson, 1987a, p. 30-31). Thus Nietzsche’s compositions adumbrate the score of an ecologic cultural studies embracing the arts and the sciences.

Nietzsche’s notion of the creative subject is itself conceived in terms of a musical metaphor and is built on semiotic and linguistic principles. He grants, with Kant, that ‘we’ (epistemic subjects) can only know representations (*Vorstellungen*), but he lacks Kant’s metaphysical confidence that Reason (*Vernunft*) can serve as a regulative ethical arbiter beyond empirical constraints.

In place of ethics Nietzsche places aesthetics, arguing from early in his career that, ' . . . only as an aesthetic phenomenon is existence and the world eternally justified' (. . . *denn nur als aesthetisches Phänomen ist das Dasein und die Welt ewig gerechtfertigt*) (Nietzsche 1872, section 6, KSA 1, p. 47). In the realm of representations, Nietzsche argues, there are 'sensations,' which provide a continuing 'figure-bass' for experience, and the 'will.' Note that the 'will' is not itself *originary* as Schopenhauer thought but is itself a representation of something ever beyond 'our' reach. The world which we can know, more specifically, is always in the realm of signs and symbols. Thus both perception and willing, the two fundamental elements of our experience, are inextricably *communicative* or semiotic. Built upon the primary symbolic sphere of perception and will, language proper arises, like a dream, as an 'appearance of an appearance' (*Schein des Scheins*) so that the Apollonian artist, the producer of 'culture,' the poet, is compelled to shape him- or herself as an individual in the medium of language out of the continuous 'music,' the figure-bass, of experience and desire: 'Apollo steps before us again as the apotheosis of the principle of individuation, in whom alone the eternally arriving goal of the originary unity, its salvation through appearance, fully realizes itself: he shows us, with uplifted gestures, how the whole world of torment is necessary, so that through it the individual is forced to the creation of a redemptive vision and then, calmly sunk in vision, quietly to sit in his rocking boat amidst the sea' (Nietzsche 1872, sec. 4, KSA, 1, p. 39-40).

Nietzsche understands music itself as a semiotic expansion of *gesture* through sound. First he points out that the origin of action of which we are conscious, the 'will,' is not the origin of action:

This most general form of appearance, out of which and under which we understand all being and all words unitarily and for which we wish to retain the word 'Will,' also has its own current symbolic sphere in the realm of language: and in fact this is as fundamental for language as that form of appearance for all the rest of representations. (Nietzsche 1871, p. 361)

In other words, the will is a representation of an upwelling power, the 'bass,' underlying our irreducibly symbolic experience; it emerges out of and is not the source of linguistic activity.

One important implication of Nietzsche's notion of the 'tonal background' provided by the 'primal ground' in the human speaker is an answer to what is known as the 'frame problem' in information theory. The basic idea is that information is unintelligible without a frame, which is constituted in human discourse, e.g., by the proscenium arch, or by the meta-message shared among higher mammals, 'This is play.' The proscenium arch or the play frame indicates that all of the signals within it are of a certain kind—*theater, play*—and should be so understood. For Nietzsche, human embodiment creates a 'frame' in terms of which digital information is evaluated, just as, for Nietzsche, the body's gestures and sounds form the tonal background out of which the melodies of music and speech arise. The body itself, in informatics as in Nietzsche, is already a *material-semiotic* configuration; it is not a 'dumb brute' but a *semiogenetic* construct constituting a symbolic animal. Language itself, in Nietzsche's account, is a direct extension of gesture via the human vocal apparatus:

The whole realm of consonants and vowels, as we now believe, may be figured under gesture-symbolism—consonants and vowels are, without the necessary fundamental tone, nothing other than positions of the speech organs, in brief, gestures. (Nietzsche 1871, p. 361-362)

The picture of symbolic activity that emerges here is as follows: the primal and unrepresentable ground of representation in all its forms differentiates itself into perception and will. The will, in turn, generates secondary symbolical activity in the forms, first, of tonality and from it music and, second, language. Melody and language are produced by the human vocal apparatus in a series of gestures made by the speech organs, just as the lyre is played by hand gestures extended into tones. Thus the continuing production of signs by the human body results in the continuous analogical production of sound, as well as different pitches and sequences of tone (melody and harmony), which in turn, in order to reconcile the ear with the eye so to speak, generate the signifying representations of language in the realm of phenomena punctuated by words (hybrids of ‘signifiers’ and their ‘signifieds’ in Saussure’s terms). Hence the continuous differentiation of gestural forms in music gives way to the symbolic demarcations of words, including the ‘I’ of the lyric poet—the originary ‘self’ who appears, for Nietzsche, in the Greek lyricist Archilochus.

The individuated ‘mind’ that originates, one step ahead of the Muse, as the source of lyric poetry, is in Nietzsche’s view tantamount to the ‘genius’ that Kant and after him the Romantics assumed as the source of creativity. But in Nietzsche’s view the mind of the lyric poet is itself the product of historical and evolutionary *semiosis*, implying the activity of a wider mentation immanent in the material-semiotic processes of the biosphere. It is this ecometaphorical *Geist* (a

metaphor for the generative complex of nature's *ecos*) that Nietzsche sees as the Dionysian psyche responsible for the processes of collective self-making in nature and culture.

Kant's 'Genius' meets Nietzsche's *Übermensch*: A Step toward an Ecology of Culture

Kant argues that the 'genius' is the only one who can produce 'beautiful art' or, to put it another way, that the judgment that a work of art is genuinely beautiful requires the corollary that the artist is possessed of genius. His argument is clearly presented in the *Critique of Judgment*: 'Genius' (*Genie*), he says, 'is the inborn predisposition of the mind (*ingenium*) through which nature gives the rule to art' (Kant 2001 [1790], sec. 46, p. 186). 'Beautiful' art, Kant argues, is to be distinguished from merely 'agreeable' art because the end of the beautiful is that it be accompanied by kinds of *cognition* whereas that of the agreeable is that it be accompanied by *mere sensations*' (ibid., sec. 44, p. 184). Since beauty or agreeableness are, for Kant, necessarily *subjective* aspects of judgment, insofar as they cannot attribute an objective end to nature but only a subjective one (there is no 'beauty' or 'pleasure' empirically present in natural objects insofar as they are governed by concepts and regulated by categories of the understanding and so the laws of nature, but rather those objects prompt in the rational subject either reflective cognitions or agreeable sensations), the only lawfulness that can be attributed to the beautiful work is subjective as well, though it is, for Kant, subjectively universal. The rational subject per se, embodied more or less by this or that human being, must recognize the cognitive end of beauty and attribute to it the agency of genius.

Since the judgment that a work of art is beautiful cannot be derived from the objective concept of a 'thing' it represents (whether that be a natural object or, say, a geometric or chromatic abstraction) under the universal laws of causation or a priori deduction, it must be derived from the subjective faculties of human apprehension. From this perspective Kant concludes: 'Thus beautiful art cannot itself think up the rule in accordance with which it is to bring its product into being. And since without a preceding rule a product can never be called art, nature in a subject (and by means of the disposition of its functions) must give the rule to art, i.e., beautiful art is possible only as a product of genius' (ibid., sec. 46, p. 186). But genius itself is not strictly definable: it 'is a talent (*Talent*) for producing that for which no determinate rule can be given . . . [of which] originality must be its primary characteristic'; because genius only provides the 'material' (*Stoff*) out of which works of genius are produced, 'its elaboration and form require a talent that has been academically trained' so that the beautiful artwork displays 'originality' (*Originalität*) and becomes 'exemplary' (*exemplarisch*). Therefore genius itself cannot give a description or scientific explanation of how it produces art; 'hence, it gives the rule *as nature (es als Nature die Regel gebe)*'; 'and hence the author of a product that he owes to his genius does not know himself how the ideas for it come to him, and also does not have it in his power to think up such things at will or according to plan, and to communicate to others precepts that would put them in a position to produce similar products' (ibid., sec. 46, p. 187). This peculiarity of genius, Kant argues further, distinguishes the arts from the sciences, so that the work of Newton, for

example, however brilliant is not the product of genius since it is predictable and reproducible from the fundamentals of mathematics and physics, so that it can be *taught*; but the work of Goethe cannot. Finally in this regard, Kant argues, following the etymology of the term, that *genius* (Latin) refers to 'the particular spirit given to a person at birth, which protects and guides him, and from whose inspiration [his] original ideas spring,' reiterating that 'nature prescribes the rules not to science but to art' by means of genius (ibid. sec. 46, p. 187).

The question of the relationship between reason and nature in Kant must be understood in terms of the relationship between noumena and phenomena, since empirical nature is given in the realm of phenomena, regarding which the noumenous power of reason makes *synthetic a priori* judgments in science, ethics, and aesthetics.

Ultimately, Kant argues that a new realm is created out of the imagination, just as a moral world is shaped by the will in the realm of ethics and politics: 'The imagination (as a productive cognitive faculty) is, namely, very powerful in creating, as it were, another nature, out of the material which the real one gives it' (Kant 2001 [1790], sec. 49). Here arises a key problem for Kant's ideas of ethics and aesthetics, one which Nietzsche will address by deconstructing the architecture of Kant's system to resurrect a new critical philosophy and methodology, based on the ideas of Will to Power, the Overman, and Eternal Return.

Nietzsche's final project tentatively named and posthumously edited with the title 'The Will to Power' argued that its fundamental approach was expressed

in the following passage from Nietzsche's *Nachgelassene Fragmente* ('Unpublished Fragments'): 'Will to power as knowledge—Not, 'to know,' but to schematize, to impose upon chaos as much regularity and as many forms as our practical needs require' (Nietzsche 1999, KSA 13 [1888], p. 333; also see Heidegger 1991[1936-1940], vol. 1, p. 12).

The characteristic epistemic activity of human cognition, according to Nietzsche, is a *linguistic schematization* of differences produced, as in Nietzsche's cosmological picture of the Eternal Return with which we opened, by the spiral of what would be known in the thermodynamics of Maxwell and Szilard as entropy. Thus arises what Nietzsche calls 'the metaphysics of language' (Nietzsche 1998, sec. 5, p. 18).

Nietzsche understands *consciousness* as the quiescent *result* of this schematizing activity and not as 'given' or 'originary' or 'transcendental,' as in Kant's moral subject or artistic genius or Maxwell's Demon. Thus what Kant takes to be foundational, and what appears often to common sense as foundational—that 'I am,' 'I exist,'—is for Nietzsche a derivative state *created by forgetting* the profuse variety, the metaphoric complexity, of the very language out of which 'we' spring.

In place of God, the soul, the Kantian rational subject, the Thing in Itself, or the Maxwellian Demon, Nietzsche offers the poetic 'Will to Power' which is, moreover, the animating energy of both the Overhuman (*Übermensch*) and the cyclical 'course of all things' in the Eternal Return. In light of the model sketched above, 'The human' (*Der Mensch*), as Nietzsche's Zarathustra says, 'is a rope

fastened between beast and Overhuman—a rope over an abyss./ A dangerous across, a dangerous on-the-way, a dangerous looking back, a dangerous shuddering and standing still./ What is great in the human is that it is a bridge and not a goal: what can be loved in the human is that it is a going-over and a going-under' (Nietzsche 2005, Forward, section 4, p. 13). 'I,' my 'self,' my 'consciousness,' has been created out of a cosmic cycle of differences endlessly spiraling, intermittently returning to where it began. As Nietzsche suggests by his metaphoric title for a section of *Zarathustra*, 'On the Blissful Islands' (*Auf den glückseligen Inseln*) (Nietzsche 2005 [1883-1885], part II, sec. 2). 'We' are islands of life and mind that have risen up amidst the tectonic shifts of the ocean floor, interacting with sea and sky, eroded by waves of entropy, linked to one another in a vast 'human' and interspecies archipelago of life and cultural forms. Thus our larger identity is interwoven with the earth's ecologies, which we labor to name according to their kinds. So Nietzsche says, 'The Overhuman is the sense of the earth. Let your will say: *Let* the Overhuman be the sense of the earth!' (Nietzsche 2005 [1883-1885], sec. 3, p. 12). And the Dionysian 'I' is a communicative link to the larger cycle of differences in the thermodynamic exchanges of the cosmos. This is 'The teaching of the eternal return, i.e., the unconditional and endlessly repeated cycle of all things'(Nietzsche 2006 [1888] part 2, sec. 3, 'The Birth of Tragedy'). The identity of the Overhuman thus replaces the concept of the individual Genius (and the legislative moral subject) in Kant, putting in its place a cosmically conscious Dionysian persona who, I might add, is a woman. 'Be as I am!' she says. 'Beneath the incessantly

changing phenomena, I am the eternally creative original mother, eternally compelling people to exist, eternally finding satisfaction in this changing world of phenomena!' (Nietzsche 1872, sec. 16, p. 90). Thus Nietzsche derives the cosmos immanently from his primal Dionysian power, in which individual merges with cosmos in, to use Gregory Bateson's phrase, 'a vast ecology or aesthetics of cosmic interaction' (Bateson 1987b, p. 306). Or to reiterate Nietzsche, 'Life is only justified as an *aesthetic* phenomenon.'

Toward an Informatic Ecology of Culture

Is Gaia—including her biotic and cultural systems—a self-generating circuit (*selbsterzeugender Kreislauf*): an informatic approximation in the local universe of the Nietzschean Eternal Return? Are cultures, societies, and organisms self-referential, autopoietic (self-making) agents, multivalent individual and collective personae, whose freedom is constrained by the material conditions and structural bounds of their self-making? A pioneer in the development of cybernetics in the life and social sciences, Bateson argued, 'A difference which makes a difference is an idea. It is a 'bit,' a unit of information.' Compare Derrida's definition of his key term: 'What is written as *différance*, then, will be the playing movement that 'produces'—by means of something that is not simply an activity—these differences, these effects of difference *Différance* is the non-full, non-simple, structured and differentiating origin of differences. Thus the word 'origin' no longer suits it' (Derrida 1985, p. 8-9). Bateson's and Derrida's definitions converge in their understanding of 'difference' as 'dynamic' and 'productive' of differentiation. Their interdisciplinary convergence suggests that

what Bateson called 'the pattern which connects' (Bateson 1979, p. 8) might link cultural studies to the spectrum of the life and social sciences.

Overall Nietzsche's critique of morality replaces standards of good and evil with aesthetic evaluations and justifications constitutive of 'culture' (*Bildung*). The greatest *danger* of his critique, and for 'cultural studies,' was put succinctly by Walter Benjamin: 'The masses have a right to changed property relations; fascism seeks to give them *expression* in keeping these relations the same. The *logical outcome of fascism is an aestheticizing of political life . . . All efforts to aestheticize politics culminate in one point. That point is war*' (Benjamin 2003[1938-1940], p. 269). War is our current condition: the 'War on Terror,' the 'Operation Iraqi Freedom,' etc. have been sold to contemporary publics by a sophisticated cultural- political apparatus which has appropriated traditional narratives (e.g., of 'family,' 'liberation,' 'progress,' 'salvation') for the uses of propaganda so as, in Benjamin's terms, to ensure that property relations will remain unchanged now that the conditions of production have become collective.

To set adequate foundations for cultural theory, Nietzsche's analysis must be supplemented, at least, with Marx's, as well as with Bateson's, in order to produce a radical cultural politics in the service of cultural and biotic diversity but *not* in the service of *divisions* in social class and wealth. As Pheng Cheah argues, the New International Division of Labor (NIDL) has been constructed by multinational corporations and their political client states so as to allow multiculturalism, liberal cosmopolitanism, and even postcolonial *hybrid* cosmopolitanism to arise among the wealthy countries of the global North while

denying the material conditions for their realization to the South (Cheah 2006, p. 62). The idea of culture and the practice of cultural studies, in other words, may not be separated from the divisions in the *labor of communication* out of which they spring.

Nietzsche's philosophy of immanence, ramified by Marx's historical materialism, requires that the material conditions and political structures constraining freedom be considered in its theory and practice. Kant's transcendent mind is intrinsic to humanity and transposable into any context because, strictly speaking, it exists nowhere (it is antecedent to intuitions of space-time and the categories of the understanding like cause, effect, substance, accident, relation); but Nietzsche's, like Marx's, autopoietic persona is imbricated in the material-semiotic structures of ecology, economy, and society: it must develop and adapt. Likewise, culture does not exist independently of material constraints: it is a material-semiotic set of practices generating a diversity of meanings situated by the labor of biotic, economic, social, and virtual actors. In terms of Nietzsche's final aesthetic vision 'we' in our various situations are part of a circular, self-referential, interlocking web of living and cycles, whose significations are the multivalent languages of biotic and cultural self-making.

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