COSMIC MATTER: LOGISTICS AND METAPHYSICS
POSITIVE FEEDBACK AS A RESPONSE TO DISTRIBUTED BEING

Lars Bang Larsen

1.

Gunilla Klingberg's works produce environments that are emblematic of our culture and the way it reverberates in our structures of feeling – our 'spirituality'. She often proceeds by feeding corporate logos through visual machines, such as kaleidoscopic mandalas and mirrors, or she deconstructs space through mutated sculptural forms. For example, in *Seven Eleven Twist* (Ynglingagatan 1, 1997), a large and seemingly abstract red, orange and green wall painting placed in a corner of the gallery became identifiable as the logo of a global chain of convenience stores when it reappeared as a readable although distorted mirror image in a spherical surveillance mirror.

Significantly, another machine she employs in her work functions as an artistic as well as an economical trope. As she puts it, 'Feedback is supply and demand in one closed circuit.'[1] In *Repeat Pattern* (Kiasma, Helsinki, 2004), the viewer entered an abstract landscape toned in orange light from a film covering the gallery's panorama windows. The installation set a number of other parameters for its proportions and perception: beige 'effect boxes', covered with silk-screen printed linoleum tiles with a black mandala motif, stood or lay around at different heights, and the electronic machinery of a sound installation had been placed under a spherical surveillance mirror hanging from the ceiling; a Marshall amplifier, facing a microphone stand, created a continuous feedback whine produced by the electronic circuitry itself and noises made by the gallery-goers. Similarly in *Mantric Mutation* (Moderna Museet, 2006), surveillance mirrors floated in space, creating an endless mirroring of one another and of the installation's other elements – a mandala wallpaper, a strip light 'halo', and sentences from New Age lore laser cut in mirror glass – in a visual feedback.

Based on the concept of feedback as defined by 'supply and demand in one closed circuit', we can assert that our culture is characterised by a strange mixture of metaphysics and logistics. This coupling makes it evident that capitalism no longer has its basis in scientific positivism, but, in a profound sense, is without reason after the collapse of the nature-culture dichotomy that industrialism was founded upon. On the one hand, we can see how religion is being mobilised for political purposes, thereby fostering conflicts with global effects. At the same time, and somehow connected with the former, capital is today predicated on mobility and communication. How can we conceptualise a regime that makes for such a peculiar hybrid, yet has profound – even visceral – effects in everyday life? It seems so de-humanised a predicament, so strange a zone in which subjective agency seems to be rendered so shadowy and fleeting that it falls outside the reach of existing critical concepts.

It is, perhaps, such a scenario that Klingberg depicts in *Cosmic Matter* (Istanbul Biennial, 2007). What appears to be Native American motifs – outlines of feathers and ornamental patterns, made in steel and hung as mobiles – reflect an architecture created with tape bearing prints of the Moon's phases, copyright signs, the helium-3 symbol and a diminished NASA poster. With reference to NASA's claim to ownership of the Moon through its so-called *Global Exploration Strategy*[2], the installation hands over mythical time of native cultures to futurity while archetypes become brands and ownership cosmic; but it is impossible to gauge where contemporary culture would be capable of drawing the line between these almost schizophrenically diverse elements.

The questions are: What characterises subjectivity inside Klingberg's closed circuits? How can we define 'spirituality', and how does it enter, or act upon, globalised time and space? Below, I will attempt to answer these questions and provide some possible conclusions. I will suggest that the use and concept of feedback in psychedelia – 1960s psychedelic art and culture – was a critical device capable of confronting metaphysics and logistics. But first, let us read the regime of logistics and metaphysics in terms of what I call distributed being.

2.

Just like the new verbs that describe the overcoming of space – emailing, googling, fedexing, and so on – distributed being characterises not a free, but an operative subject within a restless culture obsessed with

synchronicity. The concept resonates in given and universal forms of mediation that we are expected to assume in order to perform everyday functions. I take mediation very inclusively to mean computer programs, mass medial forms of representation, urban forms of consumption and living (what architects call 'the storage of people'); in short, infrastructure and machines which convey mobility, authorise routines and render them reproductive and profitable by hooking up bodies and locking them in informatically. In our logistical culture it is not just bodies that are circulating, out of privilege, necessity or because they have been uprooted by force; subjectivity itself is distributed.

In an informatic culture we act in networked environments where simultaneous transmissions and effects take place while forms and conditions of communication are continuously modified and recreated. This is a terrain of unexpected causalities, where one is forced to deal with multiple conditions or positions at the same time. Affect is mobilised in new habits and 'spontaneous' cultural reactions; as the philosopher Pascal said, feeling 'acts in a flash, and is always ready to act.'[3] On this note, another obvious example of distributed subjectivity is the politics of fear with which the mood of populations is controlled or mediated: fear of inner and outer enemies, immigration, loss of cultural belonging, and so on. Fear creates distractions that are welcome to the powers that be.

With regard to labour, a great deal has been written about the flexibility of its contemporary forms, in terms of individually tailored contracts, moving in and out of employment and prospects of frequent career changes.[4] At the same time the stakes are raised on personal 'investments' in terms of imaginative and self-representational skills. When personal networks grow and disciplinary functions are dissipated, subjectivity is no longer relegated to special spaces (schools, prisons, factories, offices, and so on), as it was in modernity's rationalisation of society. Cognitive capitalism, in the words of the sociologist Maurizio Lazzarato, is a discourse in which 'one has to express oneself, one has to speak, one has to communicate, cooperate, and so forth.'[5] As Lazzarato and other theorists argue, the production of subjectivity thus lies at the heart of an economy founded in contexts of mandatory performativity.[6]

This resonates with Karl Marx's prescient definition of labour, by which he understood the potential to produce 'the aggregate of those

mental and physical capabilities existing in the physical form, the living personality, of a human being.'[7] Marx's point is that the more sophisticated capitalism becomes, the more efficient its mechanisms for using and employing all of these capabilities that reside in the worker's lived personality. This potential is non-specific and has nothing to do with what is being produced; it is undetermined, non-present, non-realised, but an enormously important commodity. When the worker thus sells her labour, she sells something that exists as a possibility and cannot be separated from the person who sells it.

Simply put, Marx's argument was not only that we have something capital wants, but since the very resource of the productive forces runs through our nervous systems we must take over the means of production by making ourselves masters of the potential of our lived personalities. However, the question of re-locating potential is now complicated by the fact that advanced capitalism understands this state of affairs perfectly well. We cannot remove the potential of our lived personality from under capital's institutions: the regime of immaterial production has replaced the factory with a spectacular logic and an affective presence *inside* subjectivity. Personal potential has, in this way, become a question of recognition before 'creation' or production. You can only operate efficiently within social re-production as long as you are represented in culture. In other words, labour and production tend to become secondary to their visibility and continuous performance. Potentially this implies that capital has succeeded in separating the worker's lived personality from herself. Our nervous systems have been thrown out of whack.

It is an old structuralist truth that when subjectivity becomes an effect and ceases to be a cause, the production of subjectivity becomes a particular way for power to function. However, it would seem that the circumstances I have sketched out threaten the very concepts of labour, production and subjectivity. Can that which we know as the global economy really be about the production of subjectivity, if subjective being is distributed and dissipated in these ways? Rather, is it not the case that subjectivity no longer describes a process of becoming that passes through a dialectics between the self and the world? If anything, *subjectivity has become a site for events that are located outside of it*. As culture loses its rationality and the individual subject is destabilised

in this way, metaphysics defined either positively or negatively – as religion, mysticism, or fear of the other – is given a mediating role between subject and culture.

Resistance is thereby often short circuited, not because of repression but because the many interfaces of distributed being render it difficult to create spaces where you can distance yourself from representational regimes. Distributed being has a tendency to reduce resistance (and artistic agency) to the individual register; in other words, if you don't go with the flow it is your own problem. The individual subject, faced with the pressure for distribution, thus sometimes replies with a compulsive insistence on individuality – reacting with subjectivity's phantom pains, so to speak? From Yes Men to Borat, we, in this way, currently witness many reinventions of radical subjectivity, some of which do not seem a day older than when they were first conceived in the forms of performative resistance in the 1960s.

To put this in perspective in an obvious way, we can see how operational or distributed being differs from idealistic agency in modernity, which had structure and *telos* and typically worked through processes of subjectivation, through the acquisition of rights in order to be acknowledged as individual (citizen) or collective (movement). Another symptom of this was the way in which the art of modernity intended to produce expressive depth and authenticity. In the literature of the era the modern project's production of subjectivity was threatened by the *unheimlich* figure of the double. Kafka and Dostoevsky describe how identity is usurped by sneaky clones who dress, act and talk like you – alter egos who would invariably outperform their original. Today, subjectivity as a cultural project is over, or only exists in the most banal ways. To be somebody resides in mobilised and represented forms. We now co-exist with our doubles; in fact, we can't get enough of them.

We could mistake this condition, where the subject is 'multiplied' and kept in a state of readiness, for a social ontology that favours change. However, it has nothing to do with transformation. Distributed being is discontinued. It describes an itinerary in and out of zones of possibility, over and under ever-changing limits that give or annul rights and possibilities. The planet shimmers with effects that reflect and re-affirm each other in an order of the now which, it is said, has no outside.

3.

To approach feedback we must go back some decades in cultural history. The genealogy of the concept originates in biology, from where psychologists picked it up in the mid-20th century and understood it as a control tool to determine the 'noise' in the psychologist's perception of the client. In his seminal book, *Cybernetics: or Control and Communication in the Animal and the Machine* (1948), Norbert Wiener, building on the two former scientific uses of the concept, formulated an early version of computer science. However, feedback's next developmental stage was a wayward one. It became a main characteristic of 1960s psychedelic rock – acid rock – where musicians deliberately sent electrically amplified sound circulating through the PA system in order to produce howls and whines. It wasn't just used as an effect to end a concert in a chaotic, symphonic climax, Jimi Hendrix-style; the band Red Krayola, for example, would begin their live gigs with half an hour of feedback before they started to play their songs, and even 'feedback festivals' were organised, which featured nothing but feedback. It is one of the main psychedelic tropes, central to concepts of flow and transformation in time and space. Acid rock feedback had the qualities that the counterculture cherished the most in their symbolic weapons, defined by the double-bind that they could create togetherness within the community while being perceived as alienating by 'straight society'.

Several kinds of transgression were performed in psychedelic feedback: as a noise effect it made for a transgression of melody and music. I would speculate that it also suggested a subversion of the individual band's sound, and hence moved towards an inclusive distribution of sound (but, of course, this depends on how different bands would use feedback, and if the feedback itself, as the band would play it, had a specific sound). If feedback indeed functioned as a kind of universal sound, it would suggest a certain levelling out of each band's identity in order to create a commonality between bands and audiences. In addition, acid rock feedback aimed at transgressing sound as an audible event, by opening up to space and to the listener's body. That is, it was an intensification of an audible effect that aimed at visceral transmissions of energy: feedback is haptic, it is sound not only to be heard but felt with your gut. In this way, the biopolitics of feedback is that it connects your nervous

system to other nervous systems, and to the world.

In his book about LSD-activism in California, *The Electric Kool-Aid Acid Test* (1968), Tom Wolfe describes feedback as a total environment. Here is a brilliant rendition of how Ken Kesey and his group of Merry Pranksters prepare their second-hand school bus for a stateside road trip:

> Sandy went to work on the wiring and rigged up a system with which they could broadcast from inside the bus, with tapes or over microphones, and it would blast outside over powerful speakers on top of the bus. There were also microphones outside that would pick up sounds along the road and broadcast them inside the bus. There was also a sound system inside the bus so you could broadcast to one another over the roar of the engine and the road. You could also broadcast over a tape mechanism so that you said something, then heard your own voice a second later in variable lag and could rap off of that if you wanted to. Or you could put on earphones and rap simultaneously off sounds from outside, coming in one ear, and sounds from inside, your own sounds, coming in the other ear. There was going to be no goddamn sound on that whole trip, outside the bus, inside the bus, or inside your own freaking larynx, that you couldn't tune in on and rap off of.[8]

The very movement of the Prankster bus was hooked up in a total and ever-renewing loop of sound-events, in order to synchronise everybody – passengers and passers-by – in the Now Trip, 'barreling across America with the microphone picking it all up'.[9]

Psychedelic feedback is sound that cannibalizes itself and distributes the effects in a generative process that renews sound and space. This became a strategy for introducing contingency into a system, through the introduction of new information and the manipulation of existing information, with a view to the transformation of the system in which the information is located. In other words, human and technological resources produce environments in continuous development as non-deterministic structures or networks of multiple sound-making positions.

This is obviously the result of a manipulation of technology, unlike the proper use of feedback. As the Finnish musician and digital pioneer Erkki

Kurenniemi put it, 'As long as humans can misuse technology we will never become slaves to it.'[10] Scientifically speaking, feedback defines the ability (in the human, the animal or the machine) to adjust future conduct by past performance. To the human, feedback is the brain's evaluation of a signal that it receives through the sensorial apparatus when we do something. Similarly, many of Norbert Wiener's examples in *Cybernetics* come from the WWII military industry, where feedback was essential for the development of radar systems. A more peaceful and ubiquitous example is the thermostat which tells the radiator to start or stop heating when it has reached a certain temperature.

According to Wiener the computer is 'an ideal central nervous system' of an apparatus for automatic control; an automated control apparatus with motorical organs which gives feedback with its artificial sensorial organs:

> It has long been clear to me that the modern ultra-rapid computing machine was in principle an ideal central nervous system to an apparatus for automatic control; and that its input and output need not be in the form of numbers or diagrams but might very well be, respectively, the readings of artificial sense organs, such as photoelectric cells or thermometers, and the performance of motors or solenoids. With the aid of strain gauges or similar agencies to read the performance of these motor organs and to report, to "feed back" to the central nervous system as an artificial kinaesthetic sense, we are already in a position to construct artificial machines of almost any degree of elaborateness or performance.[11]

By subsuming information transfer under physiological terms, cybernetics went a long way to overcome the dialectic between human and machine. The fact that there no longer is any absolute opposition between biology and technology can lead to dystopic conclusions, as it potentially reduces the human being to mere physiological definitions (the human is a 'transient energy structure', as the LSD-guru Timothy Leary put it);[12] on the other hand it means that also technology can instigate processes of becoming, just like new evolutionary mutations incessantly take place in the biological world.

Fundamentally, science operates with two different kinds of feedback. The one preserves circulation in a system by aiming to maintain equilibrium through maximum adaptability. This is called negative feedback and the classic example of this is the thermostat that functions through a non-linear (hence negative) causal relation. As Manuel de Landa explains,

> [t]his cause-and-effect relation, however, is not linear (from sensor [which detects changes in ambient temperature] to effector [a device capable of changing the ambient temperature]) since the moment the effector causes a change in the surrounding temperature it thereby affects the subsequent behaviour of the sensor. In short, the causal relation does not form a straight arrow but folds back upon itself, forming a closed loop. The overall result of this circular causality is that ambient temperature is maintained at a given level.[13]

Positive feedback, on the other hand, is also non-linear – even more so than negative feedback – and it works *against* adaptability. To attain positive feedback, one quite simply removes the control functions that are otherwise located where the information loop would meet itself to control its dynamic behaviour. De Landa again:

> The turbulent dynamics behind an explosion are the clearest example of a system governed by positive feedback. In this case the loop is established between the explosive substance and its temperature. The velocity of an explosion is often determined by the intensity of its temperature (the hotter the faster), but because the explosion itself generates heat, the process is self-accelerating. Unlike the thermostat, where the arrangement helps to keep temperature under control, here positive feedback forces temperature to go out of control.[14]

To Magoroh Maruyana (a 'pioneer in the study of feedback' according to De Landa), the principal characteristic of negative feedback is its homogenising effect; any deviation is eliminated in the equilibrium of the loop. Positive feedback, on the other hand, 'tends to increase heterogeneity, as small original differences are amplified by the loop into large discrepancies.'[15]

The feedback in psychedelic rock clearly falls into the category of positive feedback as it is based on modes of dynamic behaviour. In acid rock, the amplifications of the sound were themselves amplified by deliberately sending the feedback system out of control to create oscillations in the flow of sound-material. This made for an intensification of effect that opened up to the biological theatre of the listener's body. The acid rock feedback is quite a peculiar phenomenon: it is not melody, but it isn't noise either (it is still played or at least triggered, set in motion). We can say that it is an unclean signifying structure, as the feedback reverb is balanced between sign and material, control and letting go. A sign is by definition something that is repeatable.[16] But by being an impure repetition, echoing and reverb are a mockery of the sign's ideality: they repeat a source by turning it into something else. At the same time they acknowledge their source by displacing it. Feedback is a sign because it is communicated, and material because it is perceptible. It is at the same time new and old, life and non-life, integration and discontinuity, overload and nothingness. As it mutates, it reveals your position in time and space by answering back with a voice it borrowed from you.

Also within the psychedelic scene there were – roughly speaking – two strands. One which was focused on figures of harmony and cosmic-religious symbolism, prefiguring new age ideologies; and one which was extrovert and dialectical, oriented towards articulating difference in social space through art, technology or activism, whose legacy can be traced to 1970s militancy and punk. The Copenhagen light group King Kong (1969 – 1972) is a good example of the latter. They intended to create a 'totally artificial environment' for all the senses, 'which functions as an expanding of consciousness, as an artificial consciousness.' King Kong's light shows referred to the 'reality outside of the total environment, but treated in such a way that alternative outcomes and understandings of the same "reality" can be established (dream, fantasy, utopia, etc.).' This is a communicative ambition which entails '"telephoning" with the audience [through] a two-way communication… made possible through the cybernetic principles.'[17]

Formulations of this kind are typical of the artistic-scientific crossovers of the 1960s, not only in psychedelia, but also in the technologically inclined versions of conceptualism. You could say that the idea of

'telephoning' with the audience is the techie version of the 1960s staple of the open art work which encouraged interactive relations between work and viewer, and which demolished hierarchies of authorship by striving to give the art work a different cultural location – often quite literally. In cybernetic psychedelia (to call it that), this implied an interdependency between the inherent activity of technical apparatuses and the perception of the viewers.

Timothy Leary, clearly a proponent of introvert psychedelia, published in 1966 the book *Psychedelic Prayers After The Tao Te Ching*. It is a manual with translations of Tao prayers 'from English to psychedelese' which were meant to be used in those transition moments during the trip when there are 'terror, isolation, reverence, gratitude.'[18] The net worth of the psychonaut's 'visionary voyages' is a 'linguistic Babel. A chaos of potentiality. A confusion of promise' inside the human brain, a '13-billion cell computer'.[19] It is necessary to train and guide oneself, otherwise one risks tripping oneself out and becoming one of those 'institutionalised mystics we call psychotic'.[20] In other words: the trip is beyond control per se (that is the whole point, in fact), instead you must learn how to go with the flow and use feedback to attain some kind of mastery and become one with the new ways in which the trip connects your nervous system to the world. This cybernetic experience of the trip is what Erkki Kurenniemi, with a dry and brilliant expression that points directly to the contemporary concept of biopolitics, called bio-feedback.[21]

Leary's book is clearly a product of psychedelia's orientalism, and he proceeds shamelessly with his 'psychedelese' translations; there is no stopping him from using baseball metaphors to underscore the timeless wisdom of the Tao. The nihilism of the text, on the other hand, is perhaps more surprising. The oceanic, near-death states of being that he evokes run counter to the stereotypical idea of the hippies' feelgood technologies for the enhancing of subjectivity. Accordingly, Leary maps out the dimensions of consciousness in a downward spiral from the symbolic mind to the nervous system, down to the DNA and the molecular and atomic levels, until the tripper finally goes beyond sensory awareness and cellular flow and supposedly reaches the spiritual finale – the void or the inner light.[22]

Leary introduces the teaching of the Tao as knowledge about '[e]nergy in its pure unstructured state and energy in its countless, temporary states of structure.'[23] He sums it up in a phrase of unusual sobriety: 'Consciousness is energy received by structure.'[24] This captivating idea lends psychedelia a structural dimension. Connecting it to the general trend at the time, especially in French philosophy, it would mean that Leary applies structuralism to psychedelic philosophy; a mythical structuralism, to be sure, but also an embodied and highly dynamic – if not hysterical and vitalistic – structuralism. This is remarkable given the anarchic breakdowns of order and hyper-transformative modes with which we tend to associate psychedelia: the distortion of the image, the meltdown of form, and other ways in which reality itself is often seen to be rendered as soft and pliable in psychedelic art.

However, looking at the artistic register alone, the methodologies that the counterculture employed to dismantle the art object – participation and self-organisation, interlocking nervous systems, intermedial aesthetics, and so on – would indeed seem close to Louis Althusser's and Claude Lévi-Strauss' structuralism. The same goes for the psychedelic identification of the larger environment through patterns of energy. Lévi-Strauss' thesis can be defined by its focus on the fact that,

> relations between observable phenomena are more important than the phenomena themselves. By concentrating on the knots in the web of the social fabric rather than the lines, [Lévi-Strauss] demonstrates that the lives of social subjects are governed by laws of which they are not fully conscious.[25]

The connection between psychedelia and structuralism sheds new light on the latter's more mystical ideas, such as the structuralist slogan that 'language speaks through me', which thus resonates with psychedelia's ruling out of isolated objects in favour of the universal and the planetary. Or psychedelia's structuralism can be summed up through its production of space, such as the acid rock reverb which is mainly concerned with the distribution of effects.[26] In psychedelic art in general empirical verification of perceptual data leads to amplification, not reduction, as opposed to conceptual art and minimalism, the other two 1960s genres with structur-

alist leanings.[27] Psychedelia desired to go through the structure of things, into the real: an ecstasy of structures or a delirium of their infinity.

Leary names a mythical structuralism with a potential to dissolve body and mind; however, as we have seen in the above – and as he himself suggests by comparing the human brain to a sophisticated computer – the body/machine opposition is unstable. The structures which give birth to life and consciousness by receiving energy would thereby not be confined to the body, but open up to communicative processes in general (cybernetic as well as symbolic). Leary's text is informed by a messianic expectation, namely the exalted vision of the turned-on nervous system, and a trans-historical communication 'with higher freer energies – tuning yourself in to the billion-year-old energy dance.'[28]

However, even if he reduces the human being to nothing more than a transient energy flow, Leary never talks about the possible existence of a deity. The psychedelic project is rather about becoming a psychedelic god yourself, as he writes elsewhere (quite possibly it would have ruined his whole countercultural project if he had constructed a religious system). In other words, energy *is*, and is what there is: energy has not been created and it will not be redeemed – it simply flows. So how can ecstatic consciousness be conceived without a metaphysical outside? What does the psychedelic vision consist of, if energy is all there is, and there is in fact 'no need to communicate – because everything is already in communication [when you are] plugged into the multiplex network of energy exchanges'?[29] How can consciousness arise from the meeting of energy and structure?

If free will is overpowered in the trip and there is no god, then ecstatic consciousness must be a question of the mediation and redirection of flows. In this ebbing and flowing of information and energy swarms, ecstatic consciousness can appear in the most unexpected of places, such as in – the thermostat. John McCarthy invented the term artificial intelligence in 1956, and in 1979 he wrote the essay 'Ascribing Mental Qualities to Machines', which started 'the dispute about whether thermostats could be considered to have beliefs':

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