

Where Lies the Problem?

On the Determination of Belief, Political-Libidinal Proletarianisation and Alter-Automation

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Abstract

The article addresses the relationality of automation and the political-libidinal literacy of citizens. After contextualising the problem of reactive subjectivity in the Global Northwest of a perpetuating Enlightenment dialectics, the role of technology in the political-libidinal mereology is reevaluated. Drawing from Bernard Stiegler's notion of ter-tial retention and Gregory Bateson's cybernetic theory, the milieu is reconstituted as a plane of transversal desire production and collective anticipation. In times of intensifying multiscalar automation, a lacking attunement to surroundings and responsibility, and general proletarianisation, the article argues for the localisation and sense-ablisation of problems to produce didactic environments for trans-individuative politics. Drawing from an ethics of care as a relational mode of thinking-acting, acts of maintenance are investigated in their potential to modulate the increasing imbalance of investment and passivity in urban subjects to foster de-proletarianisation. Drawing from Deleuze and Guattari's schizoanalysis, processes of un-doing and

re-doing are argued to deterritorialise and schizophrenise over-concretised automatons, opening up material conditions to participatory, creative appropriation and repair (collectively referred to as 'alter-automation') to reintroduce critical reflection and political negotiation into our milieus.

Keywords:

Automation, politics, proletarianisation, care, schizoanalysis

Ever since the Club of Rome commissioned the 1972 report *Limits to Growth*, it is evident that the proliferation of power asymmetries, exploitation of labour and resources, streamlining of technological developments, and homogenisation of values that our mode of economy is comprised of not only facilitates but downright necessitates the collapse of our ecosphere.¹ As population growth, on the one side, and an ego- and anthropocentric 'get-it-all' liberalism, on the other, drastically intensify, the enslaving and exploitation of Adam (the calculable cyborg subject) and Gaia (the finite but exploitable planet earth) are pushed to an extreme. While the discrediting of a proliferating nihilism and the looming emergence of climate terrorism, alongside the question of their reasonability, reap all our attention (they are not productive, but reasonable nonetheless), few show the intent to incite substantial change. On the contrary: harmful economic, social and political paradigms are actively maintained, intensifying existing hegemonies and streamlining the diverse multiplicity of practices, values and species that is left, while keeping everybody 'calm enough to carry on' as if in a Second World War propaganda campaign.²

In the current globalised political apparatus, we experience the surge of the ultraliberal, (micro-)fascist subject, having emerged from the convergence of consumerism and a history of individualist propaganda (as a conceptual extension of the anthropocentric world view) that has been funding the epoch of industrial revolution (*Umwälzung*)

in general.³ In the meantime, the boom of right-wing Politics (capital 'P'), essentially non-distinguishable from the economic fortification of the neo-liberal subject, results in the fragmentation of a global political response-ability.⁴ What we are facing is a highly fragmented global society fore-fronting individual security against a global(ised) set of economic, ecological and socio-political challenges that are co-constitutive of each other. The normalisation and intensification of ultraliberal and the far-right individualism via echo-chambers and filter bubbles results in a consolidation of a political spectrum which is fuelling lobbying across the global capitalist process, reactively polarising, and inhibiting change.⁵

There is no doubt that to effectively tackle the global challenges we are facing, truly collective efforts are necessary. What is required is a fundamental transmutation of potestas to potentia when it comes to the production of knowledges and values as well as our modes of political enunciation to allow for more diverse evaluation of decisions and the processes they emerge from, based on collectively formulated, multi-faceted reasoning.⁶ Circumventing the commensurability-compulsion of the dominant value system appears fundamental if one desires to refrain from the possibility for detournement of originally commendable efforts for private profit motives. If one aims for individual and collective capacities for fabulation on resilient modes of becoming, a critical reflection on the conditions of value production is needed. This brings us to ask: Where, in the evolution of our socio-political mereology lie crucial turning points that constitute harmful and determinate paradigms of valuation?⁷ How might we, as individuals or collectives, recalibrate this reactive subjectivity that 'modernity' has been embedding into our collective codes? In short: how might we do politics?

First, I will have to render a definition of politics that allows for us to venture from biased and conditioned opinions. Martin Heidegger, in *Being and Time*, defines his notion of *Mitsein* (being-with) – arguably the underlying condition of politics – as a fundamental constituent of the *Dasein* (being-there). Subjectivity and existence, for Heidegger and his scholars, is always situated and contextual (socially, temporally and spatially), bringing to our attention the entanglement of our individual existence with matters of togetherness. Within the framework of this article, politics will be understood as the coming together of *Mitsein* and *Dasein*. It is rendered as the process of organising individuals and their inter-relation, as well as the formulation and overcoming of problems that one cannot overcome by oneself. This will ask of us to delve into the mereological relations of individual and collective, desire and its repression, and the norms and belief systems that

make up or inform constraint regimes which in turn tie desiring individuals together. In a struggle for a new politics, we have to rethink the epistemological and ontological foundations that gave rise to the disarming, dogmatic and consumption-oriented political organisation we find ourselves in today. Politics, as a fundamental characteristic of humanity, does not refer to a part-crisis of a globally entangled catastrophe, but as a framework that both allowed for this situation to emerge and holds potential for change.

As a more specific concern, I will focus on the representative politics dominant in the Global West; assuming that elections are fair, equal and free, representatives are appointed in a four to five-year cycle to govern federal and national states via legislations that modulate with juridical institutions and executive powers. Every few years the law-abiding citizen casts a ballot in favour of a representative party or individual based on a publicised political agenda and its overlap with the citizen's desires. Proportionately convened members of a parliament negotiate their respective agendas to come to a consensus; if a majority is in favour of change, laws are passed, budgets are (re)directed and policies are adjusted. As the respective political programmes vary, these adjustments generally demand watering down to achieve accord.

This constant pursuit of consensus, however, appears to be more paralysing than productive and becomes a-representative of its subjects as it abstracts the multiplicity of individual desires and needs into generalised political party programs. Theoretically, the quasi-absence of productive differences in politics – political programmes are adjusted and largely conservative due to the necessity to comply with the largest public body possible during election periods – pushes decision making processes into a limbo of minimal resonance. Practically, it results in artificial harmonisation and normalisation of thought, desire, creativity and so on to find an 'agreeable middle'. An overwhelming inertia in changing a system or content is what enables the respective representative's professional positions and payslips. The politician is not tied to their programme but, rather, is repercussed in the subsequent election period by loss of voters if they do not deliver what was promised, resulting in the moderation of promises to begin with to ensure self-perpetuation. The borrowed consent from citizens to intervene with jurisdictions and policies legitimises the government.

It appears, thus, that the current political apparatus is set to absolve its subjects from the responsibility for participation in problem forming and negotiation. It is therefore urgent to search for modes of living that potentially open up the reactive subjectivity that underlies the dominant a-significant polarisation of individuals and allow for a response-able productive dissent.

The enlightened condition: dialectic thinking and the crisis of value

What is, then, the modern condition that appears to interlace every exchange executed, board meeting held, scientific research commissioned, and amicable deliberation conducted? To answer this, we will look back to a time before the separation of the ineffable and the undeniable, trace the tectonic shift from religious to secular values, and examine its political consequences from the current day vantage point – we look back to the Enlightenment. As philosopher Yuk Hui posits in his 2019 article ‘What Begins after the End of the Enlightenment’: ‘Enlightenment was not simply an intellectual movement promoting reason and rationality, but also a fundamentally political movement. Navigational and military technology allowed European powers to colonise the world, leading to what we now call globalisation.’⁸ The prior crusade of the exchange-value-system {e} in the West, which was forcibly imposed on other cultures over the course of colonial expansion, over-coded alternate valuations in the affected societies and eradicated economic relations based on gifting, sharing or other non-profit modes of exchanging and organising material flows. The commensurability-compulsion {f(e)}, the inevitably perpetual value-abstraction of disparate entities X and Y that is fundamental to market economies is internalised by their subjects, destabilising valuations based on use, care and surplus life. What is striking about Hui’s analysis is that not capital, but the underlying exchangeability of incommensurable values is both first move and endgame of the colonial-capitalist project. This exchangeability, to this day, allows for resource depletion, speculation, war and (modern day) slavery – it is the tail-end of the anthropocentric conquest of life and it proliferated to a global scale where ‘everything has a price’. The compatible technologies of the time – shipping and food preservation – allowed for the rapid expansion of the capitalist process (capitalisms and their associated milieus) and logos as well as the subsequent global(normal)isation of values, technologies, time and knowledges that it demands.

The suddenly exportable technologies and norms that emerged from this abstraction and rationalisation of life paved the way for the intensification of the monotecnological Enlightenment, the globalised whole with all its neo-colonial connotations, and an entropic ‘global axis of [space]time’.⁹ The ‘modern way’ is fundamentally defined by practices of objectification that emerged from the Enlightenment. It is an organisational principle based on dialectic quantification, commensurability and efficiency. It is the aftermath of what, as artist and writer Patricia Reed points out, changed drastically with Darwin’s theory of evolution: the scientification of other disciplines and the naturalisation of necessities that ultimately, are relative, yet

reify biased interpretations of contextual data as universal, alethic necessities.¹⁰ As Yuk Hui puts it: ‘the real necessity is only a relative necessity ... It is relative because if we ask why A is necessary, it is because B and C are its conditions.’¹¹

The beliefs we submit to and the necessities we deduce from them are by no means objective truths, but context-dependent constraints that only due to the artificial separation of logical scales appear independent.¹² Context prefigures the possible and primes the real with tendencies for certain outcomes. From this constituted possibility space, philosopher Alicia Juarrero deduces that ‘context dependence is not subjective; it is objective, but relational – and induced by constraints.’¹³

Given the dominance of its specific, perpetuating logos, the term ‘modern way’ is more accurately replaced by the term ‘enlightened condition’. It is the proliferation and reproduction of the commensurability-compulsion that, for reasons of efficiency (cheap labour, cheap nature) necessitates globally tradable norms and values and the processual gridding of life into digital (binary) distinctions depending on an artificial objectivity that is determined by the agreement of governmental and scientific institutions.

Although there undeniably are earlier moments in human history marking monumental bifurcations that imply efficiency qua normalisation (for example, the domestication of crops), the norms that the Enlightenment produced seem crucial for the sustenance of urban conditions, hence allowing us to address the question of whether said norms are beneficial for urban contexts and politics. To counter the impending homogeneous heat death that the Hui’s global axis of time suggests, to localise and singularise value, philosopher Brian Massumi urges us to ‘uncouple value from quantification’ and return to a use-value distinction {u}.¹⁴ This includes the reframing of systems as processes, turning away from the analysis of finite frameworks and understanding the entangled workings of Gaia and Adam as the close correlation and contamination of subject and object, the immanent outside and the fuelling of, ingestion into, or disruption of a delineated system.¹⁵

As the technological phyla of communication and entertainment evolved into social media, streaming services and anonymous online forums, the gridding of values, equivalent to the process of scientification during the Enlightenment, now extends its fibrous infrastructure to the calculation and abstraction of our libidinal investments in marketing and consumption functions, a process that over the course of this article will be understood as determinate grammatisation. The determinate abstraction of libidinal investments towards a globalised, commodifiable resource urges us to find new practices to gain back control over the political-libidinal-complex that is necessary for contingent

desiring, productive dissent and the implementation of politics that assist in trans-individuation. In this article I seek to investigate practices of collective care as a fundamentally situated (countering global normalisation), perpetually maintained and emergent (countering the finite dialectics of the enlightened condition) and potentially just (countering representative modes of politics) engagement that allow us to learn to problematise the coming together of individual, technology and collective. Three core terms are relevant for the further understanding: desire, care and belief.

The Deleuzian notion of desire describes an excess of libidinal energy (\neq lack of X).¹⁶ It defines the intentions of the individual and therefore informs the social. It is a 'more basic political concept than power' and is the driving force for becoming, while simultaneously organising systems of repression, as multiple desiring subjects jostle.¹⁷

Care is an axiological attentiveness to fragility and an attunement to one's surroundings.¹⁸ It is closely related to practices of maintenance and is product and producer of sense-ability (the ability to sense). Care requires perpetual engagement and high energetic investment for low immediate gratification. It is itself a revaluation of currently un(der)valued labour and is practiced in relation to our social and material environments.

Belief is a constructed, non-alethic universe of reference that informs individual desires and their modes of expression.¹⁹ Social codes, value systems (for example, {e} or {u}) and political responsibilities fall under this – just as much as religious and other spiritual universes of reference do.

Architecture of politics

As the architectural profession is concerned with the manipulation of constraints within the technological milieu (for example the built environment) that serves as a plane of individuation, the designer's capacity to intervene with the becoming of politics is evident. Hands-on implementations of equitable ambitions, however, often regress to struggles of participation and inclusion that merely re-enforce dichotomies between planners and users, human and non-human, or nature and culture, resulting in the reproduction of established power-relations or, at best, a slight shift in Cartesian subject/object definitions that are ultimately incapable of performing differently than the processes and dialectics they emerged from. Possibly shifting the issues at hand, these struggles are absorbed by the capitalist process and turned against substantial change in the (re)valuation of value. It is crucial to abstain from molar structures – due to their tendency to function according to the dialectic logic of the enlightened condition and the resulting mono-technological globalisation – and to concern ourselves with local, molecular frameworks to organise togetherness that are not bound to repeat the relation of an oppressive entity

X and oppressed entity Y via determinate grammatisation.²⁰

As theoreticians within and outside the architectural field are uncovering the potential of collective practices (for example, commoning), we ought to underline their political capacities and their potential to aid in processes of trans-individuation and the proliferation of potentials and information. Sharing our stocks of energetic and material flows as well as their administration, and, with it, sharing responsibility for their maintenance and determination not only necessitates individual engagement with external and political matters, but requires the careful investment of libidinal and kinetic energy in the intensive bonds that constitute the material conditions they are entangled with.²¹

In search of a politics that can assist in response-able trans-individuation we then have to ask: How can practices of collective care – as modes of spatial and social engagement that intervene with the (preindividual) milieu via productive dissent – liberate desire from determinate grammatisation and aid in the individual's capacity to problematise their own coming together with a respective socius?²² How do dominant systems of belief determine our desires? How and why might an individual (change their beliefs to) participate in the formulation and overcoming of problems via the engagement with their surroundings? And how does technology (such as the built environment) correlate with the production and maintenance of beliefs?

Determinate grammatisation

The determinate grammatisation to which the capitalist process subjugates subjectivity regulates the societal engagement in productive political assemblages, what philosopher Bernard Stiegler came to describe as 'symbolic misery'. The 'loss of individuation that results from the loss of participation in the production of symbols [meanings, values]' is taking shape as the hypersynchronisation of the subject and a continuous alienation from contingent desiring-production.²³ This dissociation from its symbolic, desiring dimension entails the emergence of subjects that are incapable of informing political problems or agendas, are incapable of critical positioning and acting in dissent. Stiegler deploys his concept of symbolic misery on the basis of his theory on tertiary retention systems: extending Husserl's notions of primary and secondary retention of information by a third, external memory is what enabled a 'trans-generational process [of] collectively conserving, accumulating and hence perpetually stabilising and transforming lessons of individual experience.'²⁴ Our capacity to transduce detailed knowledge over generations (as opposed to the general knowledge conserved in genetic codes), as externalised (exosomatised) information is what allowed for the evolving of knowledge across the spatio-temporal limitations of the subject. A deprivation of the capacity to

ingest or inform the technological milieu, a lack of access to our environment, equates to the loss of participation as described. Not only does this lack of participation in the production of a collective techno-logos result in the selective determination of causal relations, but it separates the individual from their capacity to form a type of protention (anticipation) in regard to a technological milieu. Without the participatory production of technology and its meaning, a participatory organisation of the respective developmental vector is impossible. As Johannes Schick puts forward, the application of technology is ultimately a practice to provoke a reliable future – if we find a nail, we will look for a hammer. The production of future outcomes thus depends on the intentions of those applying it.²⁵ Technological literacy is key for the capacity to anticipate future outcomes and to problematise or engage in dissent. The animating force that is necessary for anticipation is the intensive difference between an experienced problem and a generated image of the future that emerges from and via applicable technology. The technology of architecture poses constraints that can either facilitate or disallow for future unfoldings, delineating lines of individuation and potential change.

Grammatisation, the abstraction of temporal events or embodied gestures into categorical attractors, reduces consciousness and complex thought to textbooks, manifestos, technical norms, beliefs or user-profiles that are reinterpreted later when internalised and processed.²⁶ The determinacy governing systems of grammatisation that are constituted by the non-alethic necessities we submit to, however, is threatening the production of diverse futures. The targeted manipulation of affects that inform our desiring-complex, a short-circuiting of the pre-individual milieu (and its immanent potential) therefore leads to the (re) production of calculable, plastic desiring subjects.²⁷ The rigidity and prefiguration with which the actualisation of desires is conditioned within the exchange-value system does not allow for contingent, productive trans-individuation, but primes for the homogenisation and turning-a-significant of our libidinal expressions and subjectivity. As media and culture theorist McKenzie Wark elaborates: our tertial protention and ability for contingent and independent desire – independent from marketing stimuli and propaganda functions – is impaired by the absolute pervasion of our lives by a commensurability-compulsion and programming for surplus-value extraction. As the capitalist process is taking charge of our desiring complexes in a loop of financial surplus-oriented grammatisation, we are facing a new level of alienation and proletarianisation on a global scale: we are used to not owning land, we are used to not owning material production, and now we have lost ownership over what is arguably our most intimate capacity: our libidinal investment.²⁸

The making of gods: political organisation and myth-making

The coming together of a desiring subject and a restrictive socius hints at a problem: as part of our effort to crystallise the individual's relation towards its Umwelt (its associated milieu) our evaluation, at least partially, will always remain speculative and imposed. Tracing others' desires and intentions across a milieu that we, as spectators, value differently according to the affordances we can register, can never fully assess the situation. The lens of subjectivity that distorts any arguably objective recording remains. Intervening in the technical normativity that co-constitutes systems of valuation allows us to modify the constructed images that produce collective and individual anticipations, but the individuality of percept and belief persists. It is here that Gregory Bateson's *Cybernetics of the Self* aids us. Reflecting on the psychotropics of alcoholism and the mechanism that Alcoholics Anonymous appropriates to achieve comparably high success rates in curing addiction, Bateson emphasises the relation to an external higher power (for example the bottle or a god) that the bettering of the addict depends on.²⁹ The synopsis of associated system and the mind of the individual, according to Bateson, holds the potential and agency for change.³⁰ [Fig. 1]

The ingenuity in Bateson's observations is that, due to the partial schism of a mind from its associated system, the problem we are concerned with in identifying individual desires is the same problem the individual experiences in the formulation of its own situated desires: as the individual remains incapable of comprehending a rational, objective exterior (whose possible existence does not concern us right now), it generates a myth, fabulation or hallucination to substitute objectivity. Just like we cannot assume superiority over our Umwelt and its causal chain, no one else can. In order to overcome what we might call the limits of the mind, a belief emerges that explains or negotiates inconsistencies. Given that reasoning becomes a product of the reading of one's environment, our best chance to engage with a desiring subject is to engage with the constructed and potentially institutionalised beliefs that it submits to, the restrictions that these beliefs co-constitute, and the question of how we can spatially intervene with the myth-making faculties of humankind that sit on the intersection of intellect (thinking) and instinct (feeling).³¹

Taking a reading of a given political situation via the lens of Bergsonian myth-making, we can identify virtual and actual constraints that affect our engagement and behaviour: social codes and juridical limitations, economic dependencies and value systems are beliefs – non-alethic necessities – that are just as artificial as the bottle or the god are. The emergence of the specific collective belief is ultimately rooted in the political: in order to tap into the

potential that lies in collectivity (and ensured human survival), the grammatisation (institutionalisation) of political opinion and individual intentions has always negotiated parts and wholes. The determinate manipulation of said grammatisation according to surplus value extraction, however, is a more recent phenomenon. The power of grammatisation lies, as such, not in its presence or absence, but in its appropriability. In order to open up politics and make it resilient to the multiplicity that it arguably should organise, we need to become sensible to the intention and intensity behind the abstraction taking place: the appropriation of the abstract goes two ways, one motivated by the manipulation of others (*potestas*), the other by the malleability (interpretability, vagueness) of the sign (*potentia*). Altering ontological relations, altering the constraints that the milieu imposes on individual and collective via relaying affects, modulating the chutes and ridges of the epigenetic landscape that prime future unfoldings and with it the constructed beliefs that govern collectives, we can intervene.

Questioning myth-making, the modulation of desires and emergent norms, and, fundamentally, a resulting (dis) investment, a closer look at the milieu as a substantial co-constitutive of individuation, as an external actor that collaborates with the individual in the formulation and overcoming of problems, a look at the milieu as automation, is necessary.

The automated self: technical normativity and politics

The term 'automation' refers to the outsourcing of energetic investment – kinetic, psychic or otherwise – into technological edifices or systems that are to an extent self-regulating and self-operative, allowing for the mitigation of energetic input that is required to complete a specific task. Although the production of an automaton (unit of automative system) often demands a higher grade of energetic input than the task it aims to automate, automations are investments aiming to minimise later demands and engagement to break free time, material and energy that can in turn be appropriated for other tasks.³² As these automations are characterised by their respective input-to-output-conversion, we lean on cybernetic theory to clarify: what emerged in post-war continental philosophy with figures such as Norbert Wiener and Gregory Bateson, is concerned specifically with the complex feedback loops of affects and expressions (intensities) that produce automations. These auto-corrective systems ultimately are macro-scale cybernetic circuits with their own inputs, outputs and biases. A system or set of constraints and relations thus possesses both, a type of memory (as the constraints it is comprised of are products of previous feedback loops) and a type of consciousness (with preferences and intuitions primed by a designed path of information).³³

Neither the auto-corrective systems that crystallise in systems of automation, nor automatons – what in the Batesonian sense can be understood as a mind – are by any means closed. Bateson reminds us that there is no absolute interiority to a system observed: the feedback loop of outputs and inputs, the mind, only becomes the self (identity, in the Juarrero's sense) once it is situated in a specific context providing stimuli. This applies to both technical artifacts and the individual. Once a subject knows that the information that is necessary to produce a change in the mind (state) is transduced and fundamentally altered by an external condition it passes through, it can occupy its full potential.³⁴ It is the contextuality, porosity and affective nature – the sense-ability – of input and output of a system (for example, an individual or a collective), that determines action.

Let us take the relation of human and hammer as an example: it is constituted by the hammer- and human-ness of each. Without the thing, the individual will not hammer, and neither will the thing without the individual do so. Tilt, force, grip and other variables are dependent on both qualitative values of hammer and human are adapted per blow, depending on the processing of the information from the previous strike. The cross-pollination of identities, emergent potential, degrees of automation and of engagement produces a possibility space of the hammer-human-system. Whether the Batesonian mind or Juarrero's identity – the modulation of entities that make up each others' milieu and systems is what delineates the virtual.

A relational, cybernetic reading of the individual's and collective's embedding in their Umwelt reframes the technological condition of the human as a technological conditioning. Given the rapidly progressing alienation from our technological milieu throughout the industrial age, a consecutive alienation from our libidinal investment via the continuous commodification of affects in the digital turn seems less of a surprising development.

To withdraw from binary dialectics in a revaluation of technological systems, to remain in a relational understanding of individual and collective desires and constraints in gradients, we can draw from the post-structuralist theory of Gilles Deleuze and Félix Guattari. Introduced over the course of their collaboration on the two volumes on Capitalism and Schizophrenia (*Anti-Oedipus*, 1972; *A Thousand Plateaus*, 1980), schizoanalysis implicitly renders the Freudian psychoanalytical approach conceptually instable, as it is deemed fundamentally dogmatic and inert to significant change to the poles that constitute the oedipal relations. It is thus not flexibly applicable and is operating within a cartesian (that is, enlightened) ontology. Schizoanalysis aims to take the schizophrenic, the sick, out of their repressive milieu: in and of itself schizophrenia is

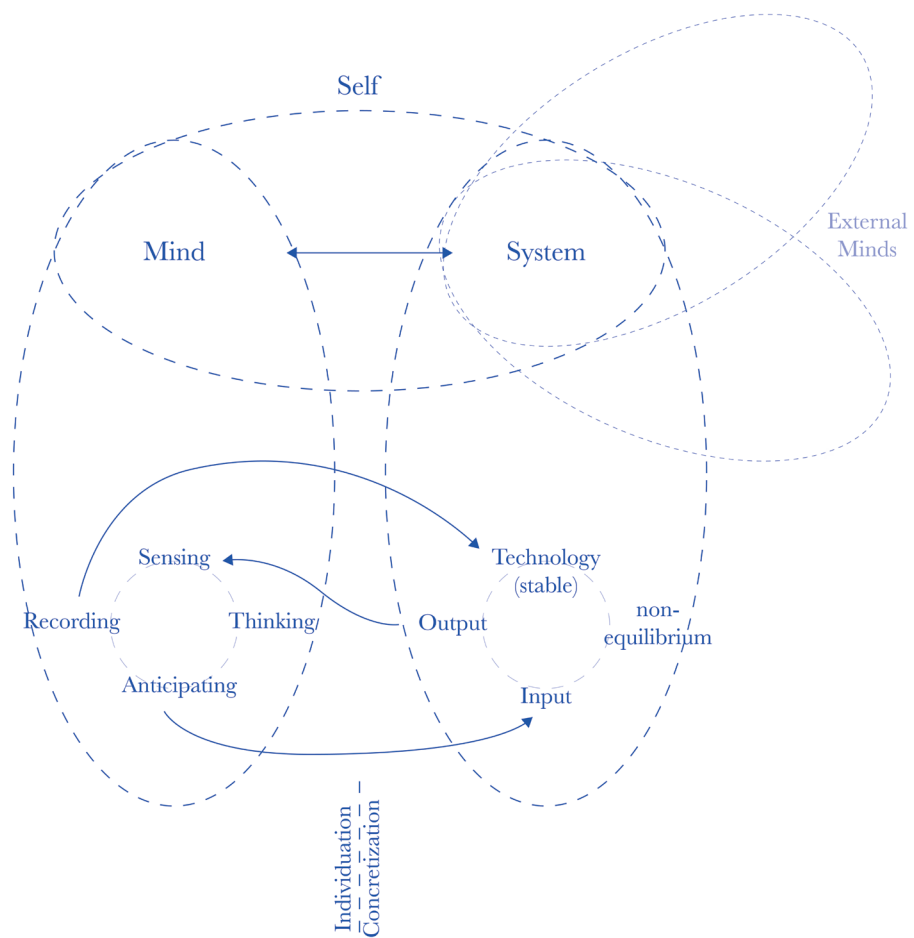


Fig. 1: The cybernetics of the self, based on Gregory Bateson's Steps to an Ecology of Mind. Diagram: author.

not condemned, but rather understood as a potential. The schizophrenic has the 'the ability to constantly break free from the dominant emotional controls'.³⁵ As a condition the schizoid 'not-making-sense', as opposed to the paranoid 'making-too-much-sense', allows for the recording of paradox within the socio-political framework and semiotic inconsistencies. The schizophrenic becomes 'sick' only as they are confronted with oppressive apparatuses, such as social norms and psychotherapeutic clinics, and withdraw into a catatonic state. As a machinic – rather than structural – process, desiring-production and social-production become inextricably linked to each other.³⁶ The schisms (breaks) in the case of an analysis of the synapses of individual and collective are the contradictions immanent to the multiplicity of desiring subjects themselves.

Applying this to the workings of dominant, non-productive systems of belief, value and desire via a counter-cartographic approach, we can render visible the abstract effect of technological and political systems that shape our milieus. As an anti-methodological approach of unlearning a qualitative-quantitative binary it acknowledges the irrationality of rationality (and vice versa) as a potential for reframing the value ethics that co-constitute politics. The same way that Guattari continues to elaborate on schizoanalysis in his later works, the reciprocal effects of technology (Φ), universes of reference (U), existential territories (T), and flows (F) need to be taken into consideration.³⁷ [Fig. 2]

On the scale of the individual, the intensifying degree of automation destabilises original problems in the milieu and gives rise to alienation. Problems that demand energetic investment are outsourced beyond a sensible environment and depend on global and local infrastructures that facilitate the transduction of energy between and drawing of energy from systems external to the individual. In the complexity, physical opacity and distance of said infrastructures, original problems become illegible and incognisable – ultimately not-problematisable – for the individual. We begin to believe we are dependent (on the) particular automaton without critical reflection. [Fig. 3]

On a collective scale, determinate grammatisation is exerted by techno-systemic tendencies and designed paths of information, constraining individual libidinal and energetic investment into the production of and care for a participatory politics. Alongside the alleviation of political responsibility stated above, digital grammatisation, which feeds algorithmic control over libidinal investment, amplifies individual alienation from the product (environment) and solidifies a technofeudalist system that gains control over the political apparatus. Schematic cuts in flows of information (F), however, always emerge from and with very real spatial and material implications (T, Φ) in the form of infrastructures, architectures, and urban and regional

planning, among others. The perpetuation of passivity – the lack of investment due to automation – is ensured by the aspiration to 'efficiency' (U) and catering to the self-sufficient ego. [Fig. 4]

We can view the problem of reactive subjectivity in a new light: if automation via technology is the base condition for both our libidinal and cognitive alienation and disinvestment, we might need to reassess technology regarding the quality of said automations. It seems that within the enlightened condition, technological phyla accelerated towards a concretisation that not only renders the technological artifact itself too fragile to adapt to unforeseen circumstances and inputs, but renders us incapable of engaging with the original problem the artifact is attempting to 'solve'. We need to reassess what we deem productive and unproductive technologies, what we deem 'working' and 'broken', in order to tackle the abstract determination and grammatisation of desires and capacities that is framing our political and societal engagement. If 'norms and values are continuously produced negentropically' (malleable myths in the Batesonian sense), just as much as the material conditions that they emerge with, decay and dis-assemblage might just be a way to address cybernetic systems of grammatisation, monopolisation, alienation and proletarianisation.³⁸

The hard way: alter-automation and care

Both, decay and dis-assemblage, are deterritorialising modulations of material relations. To avoid absolute chaos, however, life is a process of organising, maintaining and caring for things to counter this heat death. This project of life, the neganthropological project, as formulated by the late Bernard Stiegler, is developed from Martin Heidegger's neologism of *pænsée* (penser/thinking + panser/caring). The epiphylogenetic (tertiary) memory that is technology holds a crucial role in potentialising and stimulating the caring of a desiring individual, according to Stiegler:

It is for this reason that the noetic soul ... is a struggle of tendencies: this soul's potential for elevation depends on the desire to know, requiring the constant undertaking of practices of care and learning made possible by exteriorised memory.³⁹

Our capacity for (trans-)individuation thus depends on our ability to inscribe and retain information from the tertiary retention system that is our environment.⁴⁰ As the enlightened condition imposed a 'bifurcation of nature that splits feelings, meanings and the like from hard-core facts', a re-naturalisation of our relation to our tertiary retention is necessary to achieve de-alienation.⁴¹ A shift in the understanding of the scientific and technological assemblage, away from the object towards a notion that implies the

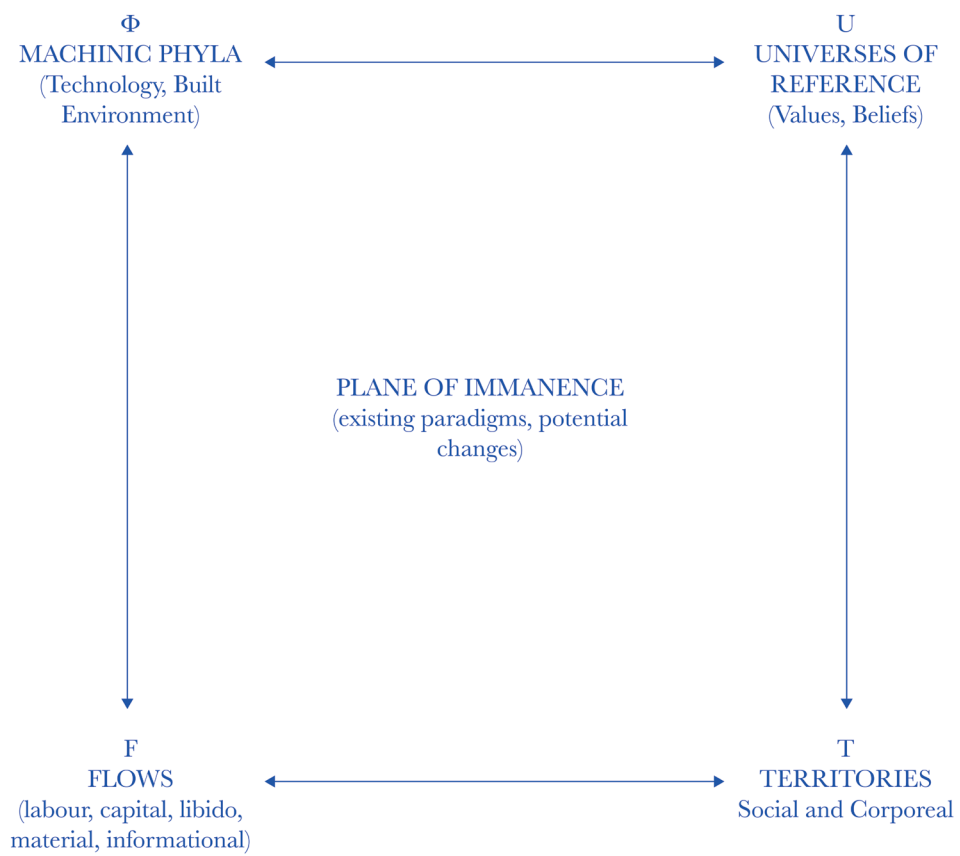


Fig. 2: Plane of immanence, based on Guattari's *Schizoanalytic Cartography*. Diagram: author.

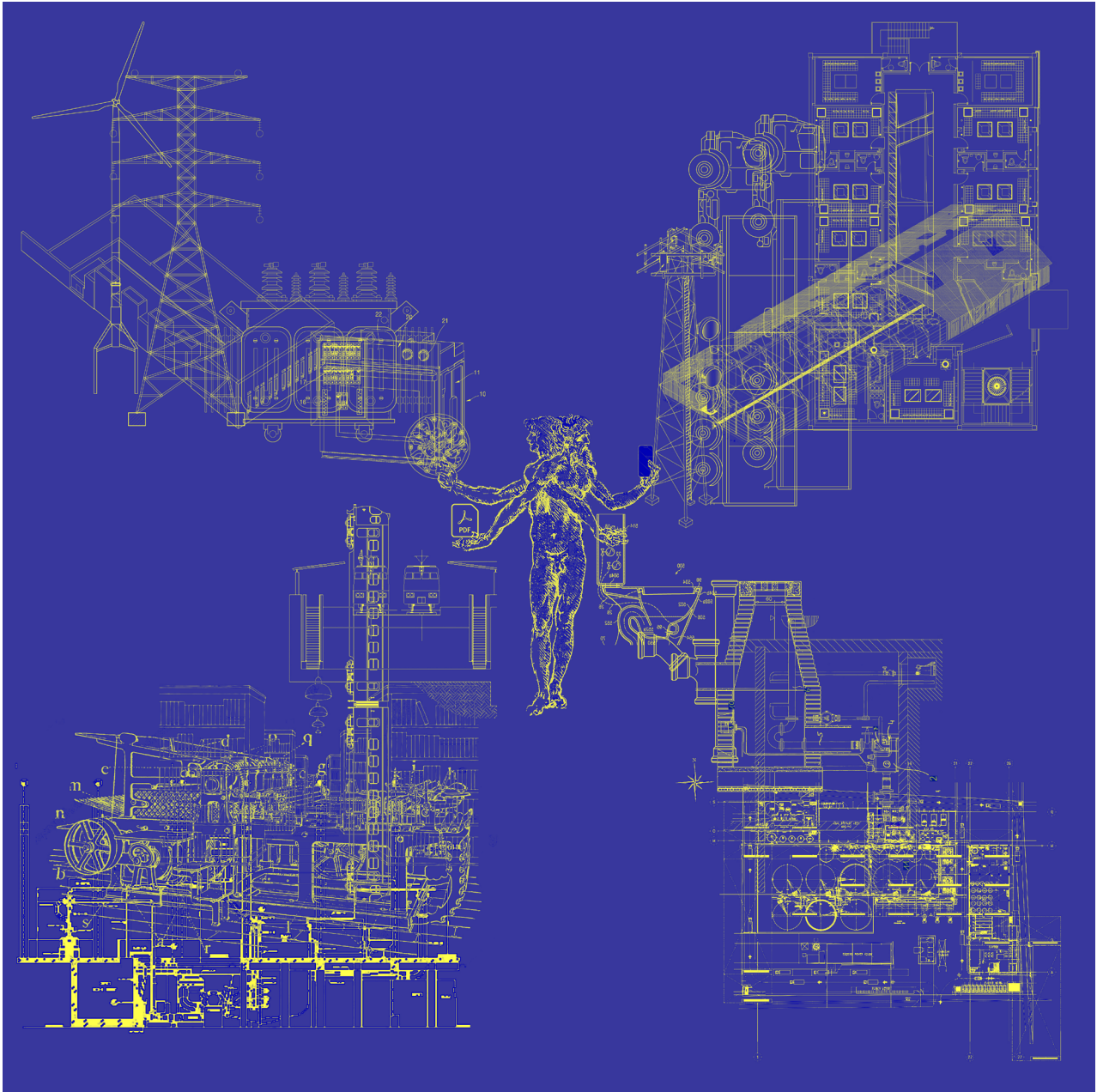


Fig. 3: The automated self: concealment of problems and supply chains in technological devices. As the distance between individual and problem expands (physically, cognitively...), sequential automation networks become progressively less sensible, legible, comprehensible and problematisable. Illustration: author.

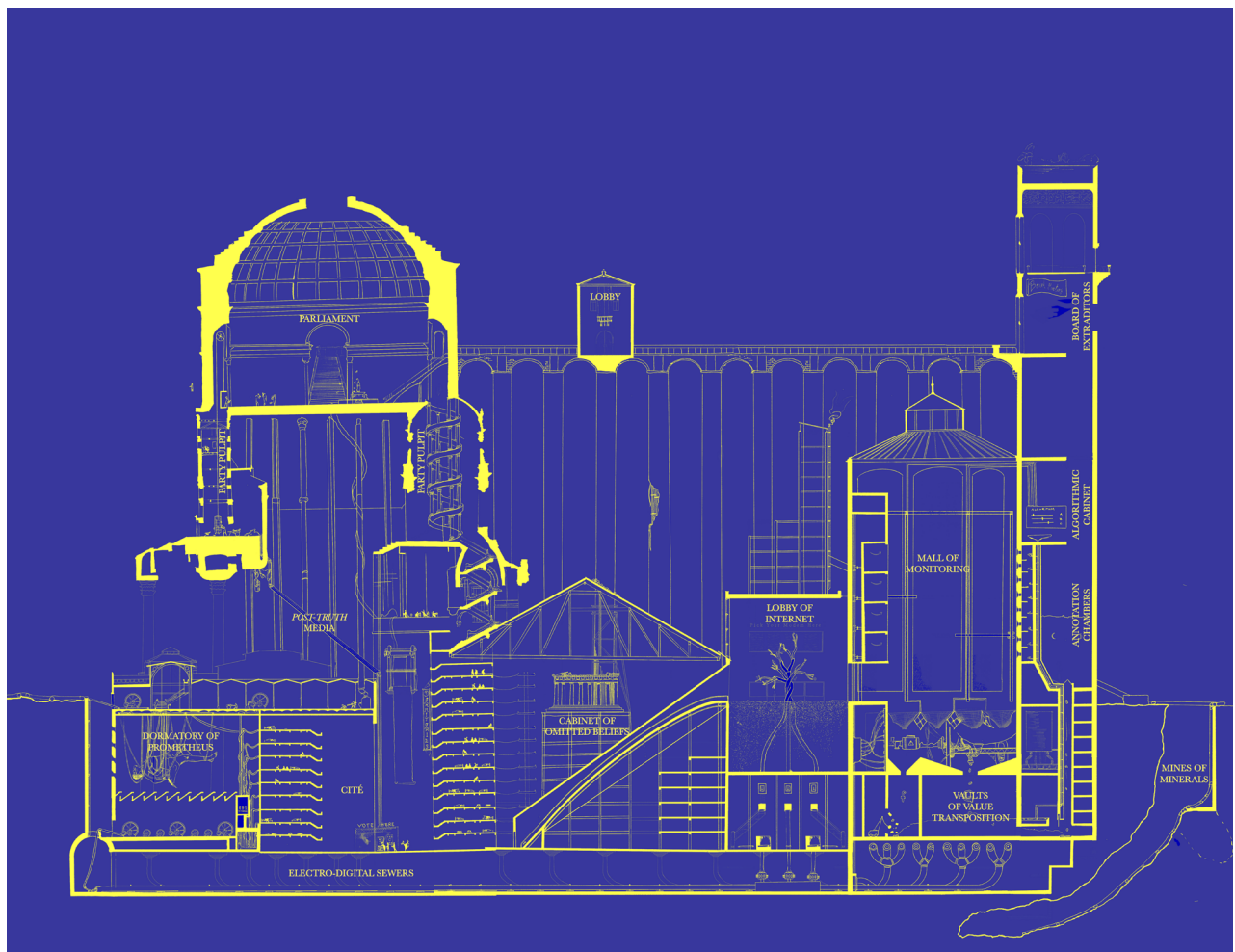


Fig. 4: The automated abstraction machine: determinate grammatisation and systemic alienation due to politico-economic monopolies. These emerge from material conditions, expressed by architectural references. Distances, opacities and inaccessibilities, as well as cyber-netic and schematic relations are depicted. Illustration: author.

social and political interest that said assemblage emerges from, demands that we be more careful in its production.⁴²

Care and maintenance are often understood as interchangeable. It is important, however, to make the distinction between maintenance – an act of care and a recurring praxis of exchanging energetic flows (the body of the worker is worn out by the act of maintaining) – and care as an axiological attentiveness to fragility, an attunement to one's surroundings.

The act of maintaining is geared towards sustaining stability. One that maintains seeks to re-stabilise an object of discussion in functioning, condition or time. Maintenance, a negentropic force per definition, aims to counter the natural decay and dispersion of energy, materials, relationships, systems – according to the second law of thermodynamics, virtually everything.⁴³ Although this negentropic struggle is only partially successful in restoring a preceding status quo, it is important to note that the underlying motivation is the sustaining of a given set of relations and distributions, a reproduction of condition X. The prolonging of material life spans, relationships and so on (systems) limits the amount of energy that is needed to produce the original system by regularly injecting small amounts to avoid a drastic non-equilibrium between the original and the actual. In avoiding further resource depletion and transformation and tying sentiments of (re)production to the existing it is producing value and discarding discard and surplus value extraction along the way. The greatest potential of maintenance, however, lies in its inability to ever fulfil its purpose properly: constraints will never be the same outside of the laboratory; once a micro-repair has been conducted, 'times have changed'. The maintained is hence subject to recursivity that, along its looping on itself, modulates with contingent events and changes. The maintained, no matter how dedicated the layman, skilled the artisan, or intellectual the engineer, will never be the same. The constraints that maintenance is not apt to overcome are the ones that the inevitable progression of time enforces.

Care, on the other hand, is a perpetual praxis that evokes maintenance. Whether someone cares exclusively for their own benefit or for what lies beyond their comprehension and compassion (the latter of which could arguably be describes as a 'good nature') is a qualitative difference in caring. An awareness of fragility and context, however, is fundamental to caring.⁴⁴ The ability to care is what we are concerned with if we are to open up to each other, demanding a shift in the ethical paradigm. To foster an ethics of care is to foster one's sensibility to sound, touch, taste, sight and smell, to emotions of attraction and repulsion, of liberty and constraint, and as sense-ability, it is a thinking-in-affects. It is a process that involves

objective judgement as much as emotional capacities, potentially reintegrating fact and belief in a post-enlightenment society.

The origins of an ethics of care can be traced back to feminist and environmental ethicists in the 1980s. Carol Gilligan, considered as one of the originators of the ethical theory, reacts in her 1982 book *A Different Voice* to the normative psychological theory of Lawrence Kohlberg's Stages of Moral Development of children. Gilligan criticises the Heinz Test's grammatisation and biased evaluation of moral development for what we can now call this the test's enlightened conditioning.⁴⁵ Kohlberg's theory valued the capacity to solve moral dilemmas on the spot via an almost mathematical evaluation of an immediate lesser evil, disregarding the 'narrative of relationships that extends over time'.⁴⁶ The test was primed to prefer a historically conditioned male perspective of 'rational problem solving' and abstraction of value, overseeing the potential and critical relevance of an attunement to fragility and the unfolding of long-term developments. This split of fact and emotion, of observation and relation, has been dominating ethico-political paradigms for centuries. To be equipped to respond to the entangled complexity of crises, to allow for a politics of trans-individuation, the relational thinking of an ethics of care, of a feminist ethics, is key to destratifying the ethicopoietical schism. The situatedness that an ethics of care demands, reinforces my claim: the entanglements and affects rendered visible by an analysis or design must always be of a molecular nature, acting on the level of the trans-individual, the milieu and the Mitsein, the intersection of the desiring subject with the socius, and the actualisation of 'technological assemblages [that] are not just objects but knots of social and political interests'.⁴⁷

Furthermore, an ethics of care assists us on the front of grammatisation: the desiring-machine, plugged into the sense-machines, plugged into the memory-machine ultimately leads us back to the desiring-complex being its own gauge valve: the inevitable abstraction that takes place within the desiring-complex (and in the transduction of information between the machines) results in presuppositions and selective sensing constituted by an external regime of desire (run by other desiring-machines).⁴⁸ Desiring begins to desire its own repression as it encounters the social-machine. The multiplicity of desiring individuals and collectives problematises desire and the grammatisation of affects. Once an understanding of the differently desiring subjects under similar constraints is developed, an understanding of desire production, grammatisation and, specifically, determinate grammatisation by external entities that alter desire production and transmission, can be developed.

To allow for the transmitters of this transversal desire to be liberated from de-valuation (transposition into {e})

and determinate grammatisation), we ought to find ways to affectively and inductively problematise subjectivity on a level that is situated between the individual and the collective, on the level of the transmission and territorial retention, on the level of the milieu (literally 'middle ground' in French). Gerald Raunig's definition of the *dividual*, the inherently situated individual that, without its context, simply is not, seems appropriate. The notion of the *dividual*, however, reconfigures our conception of assemblages, shifting actor-network-theory closer to the problem of the one and the many as it stresses the equivalence in importance of both part, whole, and (specifically) their relation. The answer to avoiding the short-circuiting of trans-individuation and of desiring-production by external regimes lies in the de- and re-fragmentation of the dissemblage, which consists of metastable relations, perpetually transforming, transgressing and transposing.⁴⁹ Significant and embodied experiences that potentially break from the alienated subject always affect the *dividual*. Acts of care that re-integrate producer and product, situated right at the intersection of desire and politics, individual and collective, of mind and system, can then occupy the role of our myth-making faculty. It seems that only an overly intensive engagement with the material, social and ecological milieu, a 'maximum effort, minimum reward' attitude that does not rely on the outsourcing of energetic investment which a monotecnological globalism cultivated, is as productive for the de-alienation from our technological milieus, as they are for the emergence of a politics of trans-individuation. The break-down of a political economy that produces a metabolic rift between the libidinal economy and the available fulfilment of desires (which barely potentialises the production of {u}), a rift from which a type of *dividual* synaptic economy can emerge, is necessary.⁵⁰ It demands automating-otherwise, automating-together and automating-with, an altering of our relationship with our tools and environments. We need to question which tools (the glass, the spanner, the house, the infrastructure) serve the purpose of becoming, and which ones ultimately produce their own ends. In short: we need a Thesian ship that has no professionals to fix it for us, but which demands that we do it ourselves – as bricoleurs.⁵¹

Breaking things that work: the bricoleur and productive Luddism

As we look towards the working automata that cause the hyper-alienation of subjects, we ought to take into consideration the varying scales at which these are at work. The automated economic and political system that serve as the framework for this article and are generally considered to

be working, are only doing so for and towards a certain outcome of a predefined scope. As a machine, they work towards what they are intended to work towards, insensible to other complications, problems and potential damages, insensible to contingent information. Similarly, with the small-scale automata that make up our immediate surroundings, ranging from smartphones to power tools to the arguably banal flushing toilet, the immediacy of gratification continues to intensify – in a trade-off for potentialising use value.⁵² The concretised machine, poorly suited to absorbing contingent events, reveals itself to be unproductive on a larger temporal scale, reproducing events, at best.

The reason for the ease with which we engage in such automations is plain biological conditioning. The conservation of energy and its carrier molecule adenosine triphosphate (ATP), which fuels our bodies and brains, allows for a reliable anticipation of a future in which the metabolism does not come to an abrupt stop. The less energy we spend, the better. As care and maintenance are practices that fundamentally challenge the workings of surplus value {e} production that aims to cater to this attitude, we can understand why their practice is productive: their value lies not in the reactive conservation of ATP but the conservation and proliferation of transindividual potentials over a long-term unfolding of events, much like Gilligan argued in her critique of Lowenhaupt's Heinz test.

In order to stimulate the desiring subject to participate in politics, we need to design constraints that stimulate the formulation and overcoming of collective problems. When the Luddites protested the automation of their craftsmanship in the early nineteenth century with the destruction of cotton looms and wool shearing machines, they did so out of a reactionary fear of technological development.⁵³ As opposed to the non-productive destruction of a tool, a conversion of the concretised machine into a productive constraint entails its re-evaluation in terms of the dissemblage; it entails a sensible dis-assembling to a level of abstract functioning which allows for the appropriation and repurposing by the *dividual*, a morphing into a part-subject of transversal desire.⁵⁴ As Yuk Hui states about the working of machines in 'Notes On Technical Normativity', 'disasters ... are not the result of the breaking down of machines, but rather of their perfection.'⁵⁵ To properly assess machines (and our technological modifications of our surroundings), from stoves to buildings to political systems and global energy networks, we need to invert our notions of the broken and the working, and understand the abstract broken machine as potential-inducing to our (cybernetic) selves, proliferating the capacity to problematise as it re-introduces the collective problem to our automated lives.

To illustrate: artist Francis Alÿs produced a short video juxtaposing recordings of an Afghan and a British soldier

dis- and re-assembling their weapons during the deployment of the British in Afghanistan in 2013.⁵⁶ In a split-screen format, they simultaneously engage in the undoing of the harmful tool, the killing automaton that is both means and end. After the machine guns are made ambiguous, broken in their original functioning, the soldiers reassemble them. The art piece is abtly titled *Sometimes Doing Is Undoing* and *Sometimes Undoing Is Doing*. The undoing of the war tool results in the production of peace and vice versa. Critically, the relation of parts of the machine gun produces the killing tool. Once dismantled, the potentials are endless: barrels, grips, triggers and coils are not inherently deadly; they can be appropriated for water systems, safety handles, life vests and suspensions. The doing by undoing can result in doing-otherwise.

In Alÿs's video the soldiers pause for a moment once the weapon has been dis-assembled before putting the pieces back together in their original configuration. The dis-assembly is usually part of an act of maintenance. The gun is taken apart, cleaned, and put back together, restablising the killing tool. [Fig. 5] It is specifically this very moment though, the moment of deterritorialisation, that holds potential for change. Once undone, the system of the gun is fundamentally destabilised, allowing for modification and creative reinterpretations of existing materials and technical elements.

The moment of maintenance presents us with the decision about what is worth maintaining, and what flows of material and energy are unnecessary or counterproductive and can be shed. The undoing of harmful systems and objects allows for their appropriation for alternative uses, allows for their schizophrenisation in Deleuze and Guattari's sense. [Fig. 6] The restabilisation of these harmful systems remains an active process – one which we can decide against.

Towards a new cosmotronics: pharmacology of the hyper-object

With the physical and cognitive distance that global infrastructure introduced between the individual and the problem, we can return to Stiegler's notion of symbolic misery. The alienation from and of technology and alongside it the alienation from the capacity for protention, appears to depend on the infrastructure that allows for the rapid transmission of information – such as electrical impulses, voltages, data, affect – far beyond the sensible milieu. The lure of automation thus expands the distance between the individual's anticipatory horizon (constituted by the sense-able milieu and the potential for protention) and the problem – a type of dark energy that is produced just as it is tethered by the expanding cables, shipping routes and satellites of global trade.

Symbolic misery does not only circumscribe the loss of participatory value production, but the loss the sensible, the recordable, the comprehensible. Etymologically, the Greek *syn-ballô* ('throwing together') supports this claim: the lack of individuation that automated and externalised desire production equates to, emerges from the lack of our throwing-together with the problem, from the absence of encounter, and from our inability to reconcile problem and action.

The moment of maintenance, however, allows for us to mobilise the paranoid automaton and suggest a line of flight that cures its own sickness. It provides a pharmacology of the hyper-object that relates urban subjects to each other, reiterating the relations of the dissemblage via partial schizophrenisation, transmuting edifices of alienation into open liminal machines that oscillate between schizo-paranoiac poles and allow for perpetual de- and re-territorialisation via immediate engagement and long-term investment of energy.

To recover from the symbolic misery that is proletarianisation, we need to situate problems in our sensible milieus and appropriate the problem via the 'solution', the former being proletarianisation itself, the latter the material hyper-object that causes it. We need to sense-ableise the abstract automaton and register its potential as an action-inducing part-subject of the technological dissemblages that make up our environments, and one that constitutes the immanent potentials for change. Participatory re-pair (as the re-pairing of materials and technical elements) presents us with a critical creative process to reflect and negotiate transversal desire without depleting further resources or disrupting energetic systems – a process that can be potentialised by largely de-monopolising the maintenance and organisation of automating technologies and infrastructures. To return to the analogy of the Thesian ship: vectors of concretisation, determinacy, appropriability and with it potential lines of (trans-)individuation are just as dependent on the shipwright as they are on the warden of the wharf.

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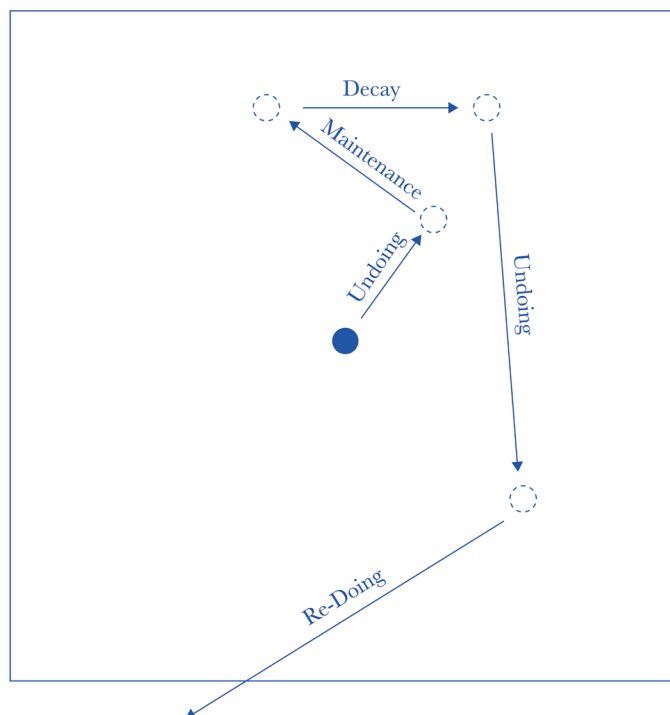
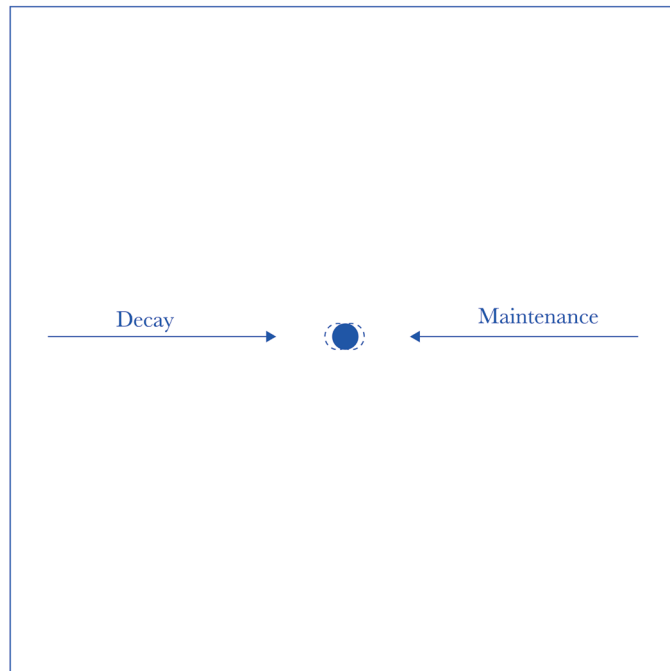


Fig. 5: Decay and maintenance are countering forces in processes of reproduction. Diagram: author.

Fig. 6: Undoing and redoing: introducing acts of disassembly and reassembly allows for the progressive modulation of a given entity that would usually be subject to maintenance, de-concretising systems and technologies and introducing metastability. Diagram: author.

Notes

1. Donella H. Meadows et al., *The Limits to Growth* (New York: Universe Books, 1972), a report for the Club of Rome's Project on the Predicament of Mankind.
2. It is no coincidence that the (barely published and ultimately suspended) British depression and war propaganda campaign (1939) had a cultural resurgence upon the credit crash of the global financial crisis ten years after its rediscovery in a second-hand bookstore in northern England in the year 2000. The 'keep calm and carry on' poster did not gain cultural traction merely due to its simplistic graphic design, but because of the underlying cynicism (relating to an emerging nihilism) with which it confronts the global polycrisis that became ever more apparent in the 2010s.
3. The term 'ultraliberal' refers to the intensifying liberal attitude that pervades the western socius, by far outgrowing what could be considered a neoliberal economical system. For 'Micro-fascism', refer to: Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 215–30; for 'Umwälzung', refer to: Karl Marx and Friedrich Engels, *Manifest der Kommunistischen Partei* (London: 1848), 5.
4. The capitalised 'Politics', in this thesis, refers to the set of political, juridical, and executive institutions – usually understood as politics in popular opinion – with all their connotations. For response-ability: the ability to respond. Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham, NC: Duke University Press, 2016), 2–7.
5. George Monbiot, 'The New Political Story that Could Change Everything', filmed July 2019 at TEDsummit 2019, Edinburgh, video, 15 min. 5 sec., https://www.ted.com/talks/george_monbiot_the_new_political_story_that_could_change_everything.
6. The Spinozian notions of *potestas* and *potentia* refer to different modes of power. While *potestas* alludes to an oppressive 'power over' something or someone, *potentia* speaks of an affirmative 'power to'.
7. Mereology describes the study of part-to-whole relationships.
8. Yuk Hui, 'What Happens After the End of Enlightenment', *E-Flux* 96 (January 2019): 3–10, <https://www.e-flux.com/journal/96/>.
9. Ibid., 2. Global normalisation results in the loss of heterogeneity per se and is thus equivalent to entropic tendencies in terms of information and meaning.
10. 'Alethic' (from Greek ἀληθεια) refers to a non-negotiable truth, the opposite of 'non-alethic', which refers to contextual truth that depends on conditions. Stavros Kousoulas, 'Ananke's Sway: Architectures of Synaptic Passages', in *Contingency and Plasticity in Everyday Technologies*, ed. Natasha Lushetich, Iain Campbell and Dominic Smith (Lanham, MD: Rowman & Littlefield, 2022), 163–79.
11. Yuk Hui, *Recursivity and Contingency* (Lanham, MD: Rowman & Littlefield, 2019), 100.
12. Alicia Juarrero, *Context Changes Everything: How Constraints Create Coherence* (Cambridge, MA: MIT Press, 2023).
13. Ibid., 60.
14. Brian Massumi, *99 Theses on the Revaluation of Value: A Postcapitalist Manifesto* (Minneapolis: University of Minnesota Press, 2018), 4–7.
15. Ibid., 9.
16. Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Robert Hurley, Mark Seem and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983).
17. Daniel Smith, 'Immanence and Desire: Deleuze and the Political', *Stasis* 7, no. 1 (July 2019): 135, <https://doi.org/10.33280/2310-3817-2019-7-1-124-138>.
18. Jérôme Denis, 'Ecological Reparation: Ethnographies and Maintenance', video interview, filmed 10 November 2021, 21 min. 22 sec., https://www.youtube.com/watch?v=ebBsXOxu_LI.
19. For alethic necessity, refer to: Patricia Reed, 'The Valuation of Necessity', in *Block Chains and Cultural Padlocks*, ed. Jesse McKee (Vancouver: 221A, 2021), 123–69; for feedback induced action, refer to: Gregory Bateson, *Steps to an Ecology of Mind* (Northvale: Jason Aronson Inc., 1987), 315–44.
20. Yuk Hui, 'One Hundred Years of Crisis', *E-Flux* 108 (April 2020): 2–9, <https://www.e-flux.com/journal/108/>.
21. The word 'in-vestment' is hyphenated to underline the endothermic vector of kinetic and libidinal engagement.
22. Practices of collective care serve as a mode of desiring production that potentially opens up discourses and productions of production, creating subjectivities that are aware of the resilience of metastable politics and hence become response-able participants.
23. Mark B. N. Hansen, 'Bernard Stiegler, Philosopher of Desire?' *boundary 2* vol. 44, no. 1 (February 2017): 172–73, <https://doi.org/10.1215/01903659-3725929>.
24. Edmund Husserl coined the two forms of retention as primary (immediate, present) and secondary (the just-past), similar to listening to music: the current note (primary) only makes sense in the context of previous musical impressions (secondary); Bernard Stiegler, *The Neganthropocene*, trans. Daniel Ross (London: Open Humanity Press, 2018), 17–18.
25. Johannes F.M. Schick, 'Images of the Future: Anticipating, Fabulating and Inventing with Bergson and Simondon', *Culture Unbound* 13, no. 3 (2021): 86–90, <https://doi.org/10.3384/cu.1689>.
26. An inevitable implication of the tertial retention system and a price we must pay to ensure the communicability of complex thought.
27. Hansen, 'Bernard Stiegler', 174.
28. McKenzie Wark, *Capital is Dead, Is this Something Worse?* (London: Verso, 2019).
29. Bateson, *Steps to an Ecology of Mind*, 315–44.
30. Brian Massumi later comes to call the occupation of potential 'acting politically', as the alter-priming of collective action is

- what causes shifts in collective organisation. Brian Massumi, 'Histories of Violence: Affect, Power, Violence – The Political is not Personal', interviewed by Brad Evans, *Los Angeles Review of Books*, 13 November 2017, <https://lareviewofbooks.org/article/histories-of-violence-affect-power-violence-the-political-is-not-personal/>.
31. Bateson, *Steps to an Ecology of Mind*, 315–44.
 32. The term automaton is, for reasons of clarity, used to describe a singular system or technical object in which automations are actualised or materialised. Automation, by contrast, refers to the process of automating something or a process that is automated. The automaton carries out the automation.
 33. Raymond Ruyer, *Neofinalism*, trans. Alyosha Edlebi (Minneapolis: University of Minnesota Press, 2016), vii–xxi.
 34. Bateson, *Steps to an Ecology of Mind*, 323.
 35. Deleuze and Guattari, *Anti-Oedipus*.
 36. Smith, 'Immanence,' 129.
 37. Félix Guattari, *Schizoanalytic Cartographies*, trans. Andrew Goffey (London: Bloomsbury, 2013), 17–45.
 38. Kousoulas, 'Ananke's Sway,' 165.
 39. Stiegler, *The Neganthropocene*, 17.
 40. Robert A. Gorny and Andrej Radman, 'From Epiphylogenesis to Generalised Organology', *Footprint* 30, (Spring/ Summer 2022): 3–19.
 41. Maria Puig de la Bellacasa, 'Matters of Care in Technoscience: Assembling Neglected Things', *Social Studies of Science* 41, no. 1 (February 2011): 87, <https://www.jstor.org/stable/40997116>.
 42. Ibid., 86.
 43. While maintenance is not part of thermodynamics, the entropy it emerges from or against is. Whoever maintains is thus involving themselves in a negentropic struggle that aims to return to a preceding status quo.
 44. The fragile egocentric is also attuned to context due to their context, not due to themselves.
 45. Moral development test conducted on children to qualify pre-adult development stages, according to Lawrence Kohlberg. The children are posed with a moral dilemma: Heinz's wife Amy is sick. There is medicine at the local pharmacy, but Heinz cannot afford it. Should he steal the medicine? The evaluation of the test was set up to prefer answers that stressed the interchangeability of material goods, such as money and medicine, as opposed to the non-interchangeable value of life. Young boys tentatively answered that yes, he should steal the medicine. Girls tentatively answered no, referring to the unfolding of events in the future that potentially lead to worse scenarios (Heinz could go to jail while Amy gets sick again and the pharmacist could be pushed into precarity). Girls, since they have been historically conditioned into a role of the care-giver, thus argue according to a moral compass that is relational and temporal, as compared to the male perspective to solve problems efficiently. The Heinz test resulted in the labelling of girls as morally less developed, leading to Gilligan's criticism. Please note that the categorisation of genders is part of both Lowenhaupt's framework and Gilligan's critique. Carol Gilligan, *In a Different Voice: Psychological Theory and Women's Development* (Cambridge, MA: Harvard University Press, 1982), 25–28.
 46. Ibid.
 47. Puig de la Bellacasa, 'Matters of Care', 86.
 48. One might think about the selective retention of visual and atmospheric characteristics in police suspect interrogations.
 49. For short-circuiting trans-individuation, see: Stiegler, *The Neganthropocene*, 18; for dissemblage, see Gerald Raunig, *Dissemblage: Machinic Capitalism and Molecular Revolution* (London: Minor Compositions, 2022).
 50. John Bellamy Foster, 'Marx's Theory of the Metabolic Rift: Classical Foundations for Environmental Sociology', *American Journal of Sociology* 105, no. 2 (September 1999): 366–405, <https://doi.org/10.1086/210315>.
 51. Claude Lévi-Strauss, *The Savage Mind*, trans. George Weidenfeld and Nicholson Ltd. (Paris: Librairie Plon, 1962).
 52. Stavros Kousoulas and Andrej Radman, 'Annotate This! Semiotization, Automation and the Recursive Causality of Images', in *The Space of Technicity: Theorising Social, Technical and Environmental Entanglements*, ed. R. A. Gorny, S. Kousoulas, D. Perera and A. Radman (Delft: TU Delft OPEN Publishing, 2024), 171–88.
 53. Gavin Mueller, *Breaking Things at Work: The Luddites Are Right About Why You Hate Your Job* (London: Verso, 2021).
 54. The dividual, as opposed to the individual, refers to an embedded subject in relation to others.
 55. Yuk Hui, 'Notes on Technical Normativity', in *Technological Accidents, Accidental Technologies*, ed. Joke Brouwer and Sjoerd van Tuinen (Rotterdam: V2, 2023,) 162.
 56. Francis Alÿs, 'Sometimes Doing is Undoing and Sometimes Undoing is Doing,' video artwork, 2013, 5: 42, <https://francisalys.com/sometimes-doing-is-undoing-and-sometimes-undoing-is-doing/>.

Biography

Justus Schäfer is an independent researcher, designer and educator situated in Rotterdam. A graduate of the University of Applied Sciences, Erfurt, he has worked in multiple design firms in Germany and the Netherlands. Schäfer received his master's degree cum laude from TU Delft. His research focuses on philosophy of technology, cybernetics, energetics and participatory practices in architecture.

