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Rhythm in Economic Space

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Conceptual space

The question of rhythm is a social, a cultural, and a political question. How to find a rhythm? And, more importantly, how can the economy find a rhythm, without tending towards the mastering of chaos and the prediction of unexpected events? In his (onto)political discussion of *The Power at the End of the Economy*, Brian Massumi finds a way to catch the temporality of rhythm in words, describing it as "a reactivation of the past in passage toward a changed future, cutting across dimensions of time, between past and future, and between pasts of different orders." (Massumi, 104) Rhythm, in other words, appears as a transversal movement in-between different temporal dimensions. So, if we imagine time as an arrow, a linear trajectory going from past to future, we will actually see that what happens, the event, is guided not only by past conditionings but also by a prevailing 'tendency' in the future, an "orientation governing movement toward an attractor, or desired terminus (using 'desire' in the subjectless sense)" (104-105). While the linearity of the arrow seems metrically measurable as a 'chronological order' and more or less predictable in its outcome, its rhythmic disposition to generate events is given by the emergent complexity-effects of feedback/feedforward which operate

between past and future in both directions, transforming the arrow into a series of quantic disconnections and com-plicated entanglements. The arrow becomes inflected into a curve, or a chaos of shifting curves, whose end is always out of sight. It is in this sense that, as Massumi suggests, the experience of the event in its rhythm (or, to use another resonant word, in its intensity) puts the experiencing self in an immediate relation of openness to an unknown future.

Financial space

Elie Ayache, a trader and a 'philosopher of the market', explains that the prices of the derivatives[1] that circulate on the financial market are 'real', in the sense that they have the same 'reality' of those future contingent events on whose actualization they depend. Giving a price to financial derivatives is therefore a way of playing with the future, or with the virtual. Since rhythm, or the emerging of an unknown virtuality in the market, is something risky, volatility is used as an instrument to measure it, to metricise it, in order to obtain a quantitative modelling of all the curve's jumps.[2] This way of working, nevertheless, has weak ontological foundations, as it relies on a set model of all possibilities calculated beforehand. Value (price) is thus calculated as a mathematical proof to rationalize highly improbable events.

Yet, Ayache argues, the very fact of trading in the market means that prices constantly vary from the theoretical value originally assigned to a derivative: if everybody knew the value from the start, there would be no reason to play the game.[3] Pricing models are therefore only there in order to be overcome, otherwise the market would not exist. But the 'residuum' existing or persisting above or below probability is the market itself, the medium of contingency,

which is not to be considered as a mere exception or an accident that ruins the model. The virtual (the market) is nothing else than a future contingent event, real before becoming actual. “In a way, the price is already in the middle of the event; it is real, … only it is translated (literally dragged in space) to a place that occurs “prior” to the event. … As a matter of fact, the price, or the market, is the virtual we are talking about, or the reality of the event that “precedes” its actuality” (Ayache 2015: 35).

The virtual is the reality of contingency, the contingency of the actual (rather than the unreality of possible variations). Trading in the market means to start directly from the middle of the contingent event. Because the event is not part of a pre-given list of possibilities, it cannot even be thought as improbable; it lies beyond probability, beyond metric calculations, in a dark residual region where probability models stop and rhythm emerges: the blank region of contingency. Only after the event, you become able to understand its causes, in a backward narrative: “It's only afterwards, now that the event has occurred, that you can go back in time or in history and figure out the chain of reasons that will have led to it.” (Ayache, 22) The assignment of probabilities as in a backward linear arrow can only come afterwards, when you start drawing models for the temporal complexity of the event. If we were to put it in Alain Badiou's terms, we would conclude that the event is not only unknown but does not even exist, because to exist, for Badiou, is to be part of a set. (Ayache, 23) The event is a member of itself, and creates its own possibilities, thus contradicting the Axiom of Foundation of set theory. From this point of view, predicting the event would imply the devising of a formula including an infinite number of variables (the volatility of volatility, the volatility of volatility of volatility, and so on), equivalent to a possibility out of human sight, or Leibniz's God.

According to Ayache, exchange (the market) is how absolute contingency projects itself ahead of time. Because what is exchanged are, as a matter of fact, not produced goods or even money as their medium, but assets, packages of capital, contractual rights to deliver or receive money. In other words, future contracts on buying and selling options, on giving and receiving money.

Technological space

The problem with Badiou's and Ayache's concept of the event is its absolute purity: mathemathics, or the mathematics of finance, purified of all economic, social and corporeal residues. Apart from a pure space of residual temporality. The gap is in fact today increasingly widening between the real economy (the economy of material production and exchange) and its financial (or debt) counterpart, where the new products exchanged (derivative contracts) can create money value but not real production value. This is certainly not something unexplainable, considering that, in fact, money itself was not born as an exchange medium but first existed as credit, acquiring the functions of a medium of exchange and value storage only much later in time (Kostakis and Giotitsas 2014, 432). So when Bitcoin, and other similar (or less similar) cryptocurrencies (in other words not state-issued but individually-issued debt) enter the financial space, the market becomes even more contingently oriented towards out of sight risks. Digital risk is paradoxically linked to the decentralized working of the blockchain technology: appearing as a source of potential and, simultaneously, of speculative danger, the blockchain is a distributed database of economic contracts, or transactions, that works thanks to the p2p system, a public ledger that does not need any centralized authority to register and ratify the transactions. Here, a coin is nothing more than a chain of digital signatures, and

it is the ‘proof of work’ (mining, or a solution of a mathematical puzzle for proving a transaction as secure, and whose difficulty depends on the number of previous operations) that makes Bitcoins circulate freely and linearly as chains of transaction blocks, while preserving the nonreversibility of the economic transaction. While this system enhances the privacy and confidentiality of the exchanges, it also requires the clear identification of the single transaction nodes. What this means, from a ‘rhythmic’ point of view, is a ‘puncutation’ of the crypto-market according to the old monetary transaction model that has accompanied the invention of money (punctual acts of exchange between individuals and through monetary units). Using Gilles Deleuze and Fèlix Guattari's terminology, we could therefore define the blockchain environment as a technological ‘milieu’: a series of coded blocks of space-time, a linear non reversible arrow, or a set of periodic repetitions of one main component (the transaction). An arithmetical succession that makes time linear. The succession also allows the nodes to synchronize themselves with each other: just by verifying how difficult the proof of work chain has become, one can estimate how much power per hour was spent on the problem. A contingency fluidly sliding on the surface of an absolute time. And yet, as Deleuze and Guattari also remind us, milieus only exist in order to intersect with each other and to transcode themselves. In other words, in order to produce not a meter of equivalences but a rhythmic difference. Is the blockchain, as a metrics of transactions, really able to generate a rhythm?

Fair Space

The interesting aspect of rhythm, as we have seen, lies in its capacity to deviate, or to fork, a metric linearity. FairCoin is a forking of Bitcoin, one of hundreds of AltCoins. It was coded in

Austria, resulting from a three years mining process. “Compared to most other coins which are just capitalized by an ongoing blockchain bubble, FairCoin encourages exchange and mutual trust.”[4] Seven million and a half FairCoins are today divided among infrastructural funds, funds for the common, and funds for the South of the world. And then there is the FairSaving bank. In order to get economic value but without the downside of exploitation, the FairCoin project clearly defines its principles and goals, and tries to find an agreement on the coin’s price, which can only be maintained through the setting of organizational and decisional structures. The system has in fact a relational and organizational basis with the aim of recognizing principles and modalities of working, and also the the right instruments for self-employment, investment etc. The structure is composed of local nodes, all involved in a virtual/territorial relation to each other, and decisions are taken virtually and internationally, through open assemblies organized by areas and discussion groups, in order to facilitate unitary decisions. Each local node acts (in complete decisional autonomy) as an exchange point, or a ‘bank’, mediating with FairCoop (from where the FairCoins come).

The BitCoin (and other digital currencies) exchange rate is defined by the supply and demand in the market, which makes it extremely volatile and sensitive to external factors. Furthermore, the code is prone to attacks and bugs (although difficult, but not impossible, to actuate). As a defensive measure against risk, the FairCoin's price has therefore been established collectively (from December 2017, it has increased to 1 euro), in order to intervene on speculation and market edging: all the exchanges happen at the official price, and only 10-20% of the Fair money is on the market on a free exchange, without any relation to FairCoop. On the FairCoop website, we can read a clear list of all the pros of a price

increase: ‘increase of the stored value in the community funds, more economic power for FairCoop to invest in the own ecosystem and in other related projects, prevention from arbitrage’. And we can also read the cons: ‘a fast increase has a higher risk of initiating a bubble or get speculators in with the intention to “dump” on a high price, a big price difference over a long time can lead to a liquidity problem for FairCoop’. Every change of price is therefore always considered with caution, by trying to calculate the probabilistic scenarios of the price shift event in its consequences. But in 2017, the price had to be corrected several times. Against the artificial flatness and the inhuman speculations of the financial market (as a form of accelerated and absolute capitalism), FairCoin thus rejects risk altogether, choosing to represent a metric sustainability based on human needs, and on the common self-interest of the coop. From this point of view, the Fair project seems to lose in rhythmic economic intensity and virtual conceptual speculation, what it gains as concrete liquidity and actual social production. A somehow rigid, or at least well-defined, organism, auto-poietically producing its own means and ends, as a whole and, ideally, autonomous economic system. And yet, whereas in an economic environment the arrow’s end is always the self-interest of the rational (individual or collective) subject of the economy, intensity equals to the holding together of contrasting tendencies, a “mutual inclusion of what under other circumstances tends to separate out.” (Massumi 2014: 69)

Economic Space

In Massumi's words, “*intuition as a political art*” (the art of 'finessing the event') is an aesthetic intuition or 'invention' “of modes of compossibility among normally mutually excluding contrasts…” (Massumi, 93) It would be interesting, from this point

of view, to look at the FairCoin project as one of the many molecules that compose the contemporary fabric of alternative digital economies, and that are often in contrast with each other's means and ends. On the other hand, "The Space platform initiated by Economic Space Agency is an open, collaborative smart contract ecosystem based on the fourth generation (post)blockchain technology, Gravity2. ... [Here], Economic spaces are protocols of economic, financial and social interaction, of value and risk creation, of sharing and distribution of resources. ... Rather than conceiving one totalizing economy, Space envisions the interoperation of a plurality of micro-economies, each with its own governance model, value creation logic and capacity for tokenized self-issuance."[5]

How can contrasts be held together in an economic space? The general neo-liberal assumption is that today we live, and exchange, in a spacetime of 0 distance and absolute fluidity (or absolute liquidity). This absolutization of time and space is well represented by the blockchain structure: a network that works like one giant computer. What Gravity (ECSA's fourth generation blockchain) does is to un-chain the smart contracts processed by the system, distributing them among many blockchains that work like computers risking and speculating together, in an infinitely scalable network topology (decentralised cloud computing). From the one virtual machine of BitCoin, to a network of virtual machines operating together and composing a computational fabric.

In this network, exchanges do not simply happen through coins but 'tokens'. A token, in ECSA's view, has more expressive dimensions than a BitCoin. It can serve to create, capture and distribute value in a different way. A difference emerging from the repetition. As argued by Fèlix Guattari in *The Three Ecologies*, it is

general equivalence that flattens out other forms of value in the capitalist system:

What condemns the capitalist value system is that it is characterized by general equivalence, which flattens out all other forms of value, alienating them in its hegemony. On this basis we must if not oppose, at least superimpose instruments of valorization founded on existential productions that cannot be determined simply in terms of abstract labour-time or by an expected capitalist profit. The information and telematic revolutions are supporting new 'stock exchanges' of value and new collective debate, providing opportunities for the most individual, most singular and most dissensual enterprises. The notion of collective interest ought to be expanded to include companies that, in the short term, don't profit anyone, but in the long term are the conduits of a processual enrichment for the whole of humanity. It is the whole future of fundamental research and artistic production that is in question here (Guattari 2000: 65).

These reflections, which sound like an anticipation of the contemporary economic experimentation allowed by new technologies, hint at the possibility of other forms of value creation, not necessarily measurable, but with a financial life of their own. In ECSA's Space, The token is replaced in fact by 'a token' (a trace, an archive of exchanges), so that the very notion of a general metric equivalence and of its associated concept of ownership, can be broken apart: the question becomes one of rights or capacities over an object or a service (a more finely granulated economy than the simple 'possessing-not possessing' dichotomy); for example, not who owns a house, but who has the right to open its main door at a certain time, etc. The question of measuring the value of such capacities, and of the different forms of exchange they can engender, is an interesting but still open one,

whose answer will depend on the different direction the temporal arrow takes, each time a new economic project is initiated. What Economic Space proposes is to act as a template of possible offers, propositions, exchanged through tokens, in a rhythmic combinatorics of rights. In this sense, it becomes possible to think of 'a token' in contrast with a kind of empiricist concept of the transaction happening as, and between, individuated selves. In particular, the identifiability of a general and quantitative notion of value as the basis of the exchange (and of the token as its measure), is replaced by a logic of impersonal (not merely anonymous) financial individuation (rather than individualization) by 'a token' and its respective capabilities or rights. A financial singularity, we might say, rather than particularity.

Now, we can think of the capitalist economic system as an ordered succession of the same repeated component, which is the transaction, and which becomes each time particular: buy-sell, pay-receive, I give you this, you give me that, subject-object, 1-2, 1-2, 1-2... What seems like an increasingly free circulation, is actually still entrapped in the same model, which is that of the transaction, with financial developments such as HFT providing nothing more than an acceleration of the metrics, and an advancement in the de-humanisation of the market. Technologies like the blockchain do not really offer more than an absolute automatisation, triggering a liquidity which is still enchained to a coded system of blocks. What ECSA proposes is a rhythmic intervention on this system. Whereas the germ of this project was the Robin Hood cooperative (an algorithmic parasite launched in 2014, that could insert itself in the financial market, stealing information and using it to develop its own transactions, a project that aimed not only at an acceleration but also a deviation of the transactions flow), the Space platform appears like a better way of rhythmicising the flatness of the

transactional system into a transitional one. The economic character of the project revolves around what is defined as the 'offering' moment of the transaction, the act of giving something, for example of giving out a token. Conceived in its corporeal phenomenology, every offering gesture implies an extension of one's arm in the act of opening one's hand. Whereas in the capitalist economy (including the financial market) this gesture always appears as one side of a whole performative trans-action that quickly closes the circle into a giving-taking reciprocity (you give in order to receive back), in the Space's idea the same gesture allows for a very small interval to open itself, before the repayment takes place. It is in this interval, that the elasticity of ideas such as tokenization (instead of monetization) and capabilities rights (instead of possession) allows a simple unit of economic transaction to be shaped differently, producing different ways to measure what has to be repaid. An intuitive eco-nomic system whose rhythmic potential consists in trying to reappropriate the logic of the derivative through trans-active or transitional (rather than transactional or transitive) relations and instruments.

What is an economic event?

The event can be a price increase in the market (as with Ayache's volatility), pure and abstract financial rhythm. But in that case, the event will not generate enough rhythm, because it will appear in one isolated flow, while all cognitive, aesthetic, affective practices will be subdued to financial ones (financialisation of expression). Or the event can be an attack, a coordinated human intervention interrupting the line of exchanges (as with the hacking of the Ethereum blockchain). In this other case, the event will produce a certain intensity in the market (the keeping together of different times, synchronizing the lags in order to attack), but only in order

to enclose it in the same circle of the economic transaction, with a mere shifting of the ownership sides. An offering in Economic Space appears instead as an artistic event that can allow a political rhythm to appear in the financial chaos. It is in the exchange interval, between the offering gesture and the gesture of taking back, that a space opens, in which the very measures of valuation can vary, and the closing of the gesture might even not take place.

Bibliography:

Ayache, Elie, (2011), "In the Middle of the Event," in R. Mackay (ed), *The Medium of Contingency*, Urbanomic

Deleuze, Gilles and Guattari, Félix, (2002), *A Thousand Plateaux. Capitalism and Schizophrenia*, Continuum.

Economic Space Agency, "On Intensive Self-Issuance: Economic Space Agency and the *Space* Platform," in I. Gloerich, G. Lovink, P. De Vries, *Moneylab Reader 2. Overcoming the Hype*, Institute of Network Cultures

Guattari, Félix, (2000), *The Three Ecologies*, Athlone Press

Kostakis, Vasilis and Giotitsas, Chris, (2014) "The (A)Political Economy of Bitcoin," in *Triple C. Communication, Capitalism & Critique. Journal for a Global Sustainable Information Society,* Vol 12 n 2

Martin, Randy, (2015), *Knowledge Ltd. Toward a Social Logic of the Derivative*, Temple University Press

Massumi, Brian, (2014) *The Power at the End of the Economy*, Duke University Press

[1] A derivative is a financial product, or a contract, whose value depends on an underlying financial asset, such as an index or a currency. According to Randy Martin, “as a means of bundling together attributes from disparate values, the derivative holds the key to the most salient mode of sociality of our moment, one that makes the future actionable in the present, that connects what is near and far, that assembles bits and moments together for appreciable gain, that melds circulation with production, that hedges knowledge against the unknown in ever more intricate indices of risk, that enables movement together from what is already in motion without first insisting on unity” (Martin 2015: 5).

[2] In Ayache's words, “Volatility relates to the fact that if you have something that is MOVING, you have the trend of the price – an upward or down-ward trend – from which volatility measures the standard deviation – the noise of the thing as it follows its trend” (Ayache 2011: 20).

[3] “The academic theoretical models try to model the market as if it was an already-written reality that implied a certain range of future possibilities; whereas recalibration means that, even as they use these models, traders *rewrite* the market continually in contingent ways that these models cannot capture” (Ayache 2011: 28).

[4] https://fair-coin.org/hr/node/201

[5] (Economic Space Agency, 235). See also https://economicspace.agency/, and https://economicspace.agency/gravity