

For a syntropic economy

Anna Rita Innocenzi¹

I slowly read through the pages of a book titled: “*Together for a Different World*.”² It seems intriguing. I’d like to read all the contributions, by different authors, but my gaze lingers on a title that attracts my interest, intrigues me. It strikes me as an extreme synthesis of words, each containing a full, complex meaning, so rich in its entirety that it seems to leave no room for further comparison.

It must be truly difficult, I think, to establish a comprehensive relationship between terms already so pregnant with meaning. The title, in fact, is: “*Syntropy, Consciousness, Spirituality, Society, and the Role of the Heart*.” The author is Ulisse Di Corpo.

The first word, in particular, strikes me: “syntropy.” What is “syntropy,” please? I thought I had a decent amount of knowledge, quite multifaceted, at least enough to allow me to interpret this term, at least to give it meaning.

But this word makes me cringe. So I begin to read the text. The author, as I said, is Ulisse Di Corpo. I quickly skim the first pages of the author’s biography and finally get to the point that interests me. I read: “...The term syntropy comes from the combination of the Greek words “sin,” meaning “to converge,” and “topos,” meaning “tendency.” Syntropy is at the basis of our sense of existence, a fact that I had never been able to explain and understand in terms of matter and energy.” (ibid., p. 126)

In Di Corpo’s thinking, the theory of syntropy becomes a fundamental approach capable of explaining the complexity of things, of life, the meaning of events, and the purpose toward which the entire cosmos tends. Di Corpo works on it in the Faculty of Statistics, whose Dean, Vittorio Castellano, shows great interest in this approach, which can revise our views on the meaning of things, on evolution, on life, on the progression of the entire cosmos.

An excellent thesis, original, I would say unique, capable of changing the vision of the world and of people; it thrills the Dean, who recognizes in it the ideas supported by Luigi Fantappiè.

Di Corpo had never heard of Fantappiè’s work on syntropy, but, noting its incredible correspondence with his own theories, he took an enthusiastic interest in it. I report Fantappiè’s arguments in his writing because no one, better than he, who discovered and

¹ Anna Rita Innocenzi: innocenziannarita@gmail.com

² www.amazon.com/dp/B0DVR2XYZH

supported it, was able to outline a theory capable of explaining the evolutionary tendency of humanity and the entire universe; he can give us an adequate explanation of the ideas he spreads. “Luigi Fantappiè was one of the greatest mathematicians of the last century, so much so that in 1951 Oppenheimer invited him to move to the Institute for Advanced Studies in Princeton to work directly with Einstein. In 1941, Luigi Fantappiè coined the term Syntropy and published the Unitary Theory of the Physical and Biological World.”

In the early 1900s, all the fundamental equations of the universe presented a dual solution: energy that diverges from causes located in the past, governed by the law of entropy, and energy that diverges backward in time, from the future, and which for us who move forward in time is energy that converges toward attractors; this second energy is governed by the law of syntropy.

A supercausal vision was spreading, in which reality is the result of the interaction between causes and attractors, between past and future. A vision that harmoniously combined Einstein’s relativity and quantum mechanics. A goal-directed vision in which attractors are our goals. A vision that was confirmed by experimental evidence, including the dual nature of matter (wave/particle): particles are the expression of the past, which is determined, and waves are the expression of the future, which, not yet determined, has a probabilistic nature. (ibid., pp. 128-129)

The above excerpt clearly demonstrates how revolutionary the theory of syntropy was, how it could overturn the peaceful, undisputed analyses and theoretical hypotheses held by the majority of scientists.

Indeed, even “science” often ends up constituting a “dogma,” an act of faith, a safe haven capable of warding off complex worldviews that cannot be contained within rigid and incomplete analytical frameworks.

The founder of the Central Institute of Statistics, Corrado Gini, himself began to question the coexistence of the two disciplines of Mathematics and Statistics, and the specific functions they assumed. “He immediately realized the analogy with the wave/particle duality, where mathematics deals with determined phenomena, while statistics deals with those not yet determined that manifest themselves probabilistically. He also noted that statistics is used to study living systems, while mathematics is used to study physical phenomena.” (ibid., p. 130).

Fantappiè remains a great mathematician, yet little-known, perhaps precisely because of the originality of his theories and the difficulty of building working hypotheses based on them that could take into account the complexity of things, that could justify the coexistence of wave and particle, overcoming a Manichean attitude that always led to the rigid either/or framework, to reductionism, to the extreme simplification of reality to the point of falsification. His small book describing syntropy was even less well-known.

Ulisse Di Corpo devoted himself to this painstaking, humble, and difficult task of reconstructing the syntropic vision. In early 1997, he wrote “Syntropy, the Theorem of Love,” a novel set in 2026 that proposes the transition from an entropic to a syntropic society.

Also of great interest is the reference to Antonella Vannini’s doctoral thesis in psychology, which introduces the following working hypothesis: “Since life feeds on syntropy, and syntropy flows backward in time, the parameters of the autonomic nervous system that supports vital functions must react in advance to future stimuli.” (ibid., p. 134)

Antonella Vannini, Ulisse Di Corpo’s wife, conducted a series of experiments aimed at verifying the theory of syntropy. “Measuring the heart rate and skin conductance of subjects who were randomly (unpredictably) shown images with neutral content and images with emotional content, a strong activation of heart rate and skin conductance was observed before the images with emotional content.” (ibid., pages 134-135)

At the beginning of the twentieth century, those working on the dual solution of energy realized that the negative-time solution described the properties of life, and in particular the properties of consciousness. The sense of existence emerged from the properties of cohesive energy in negative time. Furthermore, it became clear that the sense of existence could not be a manifestation of mechanical systems (matter and energy), even highly complex ones like computers today. The sense of existence had to be a property of all living systems, even the simplest ones, such as unicellular ones.

Thus, the supercausal vision of reality took shape, where mechanical systems are the result of causes that follow linear time, while living systems are the result of the interaction between causes and attractors, where the future interacts with the present. According to the supercausal paradigm, life is purposeful and guided by attractors; well-being is achieved by converging on attractors. This new paradigm was confirmed by numerous experimental tests, starting from the dual nature of matter (wave/particle), where the particle is the expression of the past, already determined, and the wave is the expression of the future which, not yet determined, manifests itself in a probabilistic way. According to this vision, life and consciousness are finalized and evolve to reach the attractors located in the future which, ultimately, reunite in a single, cohesive, attractor of love... which coincides with God. This finalized vision of life affirms that we are in the service of God... and not of the authorities that govern our society... This fact was considered unacceptable by those who held power.” (pp. 135-136)

Those who escaped the turmoil, disorientation, and confusion that such a revolutionary theory, antithetical to entropy, could cause, Di Corpo argues, were Heisenberg and Bohr, who in Copenhagen developed an interpretation of quantum mechanics known as the Copenhagen interpretation, “according to which matter propagates as a wave, but when

observed, the wave collapses into a particle. In other words, the particle is formed only as a consequence of observation, an act of consciousness. Reality thus takes shape from the act of observation. The fundamental consequence of such a theory is therefore that consciousness itself will create reality, becoming its prerequisite.

The consequences of such a theory on the worldview, on the order of things, and on life as a whole are evident. It is a matter of presupposing that consciousness pre-exists reality and that therefore the act of observation, a manifestation of consciousness, creates reality itself. Is it therefore consciousness and man, as a conscious being, who creates reality, who determines its movement and evolution?

Is it a sort of superman, a super-consciousness above good and evil, who exercises creative activity, who determines and fixes reality, in an imperialistic attitude that omnipotently sets itself up to place its own ego at the center of everything?

The political, philosophical, and social implications of entropic theory can therefore be devastating for human rights, peaceful coexistence, and cooperation between peoples. This issue obviously pertains to the scientific field; the experiments conducted that confirm the syntropic view attest to the indispensability of empirical verification, which alone can confirm the reliability of theoretical hypotheses.

However, on the social and human level, the consequences of the aforementioned mechanistic view present us with a state of permanent belligerence, a perpetually Hobbesian condition that enshrines the state of “homo homini lupus.”

We bitterly note how contemporary society responds to that egocentric narcissism, to that projection of a giant “I” onto the world screen that consigns us to a state of war, misery, and permanent poverty, forgetting human rights and a possible model of social relationships based on sharing, dialogue, and service.

Di Corpo develops a relationship between entropy and syntropy expressed as follows:

$$\text{Energy} = \text{Entropic Energy} + \text{Syntropic Energy}$$

Since, according to the first law of thermodynamics, energy cannot be created or destroyed, but only transformed, we can assume it is constant. We can therefore replace Energy with the number 1 and write:

$$1 = \text{Entropy} + \text{Syntropy}$$

$$\text{Entropy} = 1 - \text{Syntropy}$$

$$\text{Syntropy} = 1 - \text{Entropy}$$

Therefore, entropy and syntropy are complementary parts of the same unity.

Di Corpo further writes: Entropy and syntropy are on opposite poles. Therefore, if we want to increase syntropy, we must reduce entropy, and vice versa, if we want to reduce syntropy, we must increase entropy. Reducing entropy can be achieved in many ways, such as by living a minimalist lifestyle, consuming low-entropy products (as is the case with a vegetarian diet), etc. Reducing entropy to increase syntropy is a law that can be applied everywhere: with individuals, in companies, in product design, within public administrations, and in states. Reducing entropy increases syntropy and inevitably also increases well-being.

Syntropy is the invisible aspect of reality, the spiritual realm of consciousness and love. Luigi Fantappiè described the discovery of syntropy as the “Christic” element of his life.” (ibid., pp. 139-140)

Well, as I browse Di Corpo’s significant considerations with ever-growing interest, I begin to wonder: “If syntropic energy seems to direct the course of events, of humanity, of evolution toward a convergent synthesis, a clear finality that reduces and concentrates in the ultimate result, if, on the contrary, divergent energy, governed by the law of entropy, causes dispersion and death, then can syntropy itself be analyzed and interpreted according to an economic law? Can it set guide, a point of reference for economic phenomena?

I begin my reflection by starting from the fundamental principle that underpins the entire theoretical framework of economics as a scientific discipline. It is the hedonistic principle that guides the actions of homo oeconomicus: maximum result, minimum effort.

In other words, it is the expression of the criterion of efficiency that must guide the individual and the community itself in satisfying mutual needs, in choosing between scarce means available for alternative uses. If a means is not scarce, it cannot be considered a factor in the economic sense. It lacks the rarity that confers utility, and therefore value and price. The choice must correspond to criteria of rationality that guide the alternatives in the use of the object and therefore push toward the most efficient use, the one that can provide the greatest possible satisfaction of need with the lowest cost not only in terms of price, but also in terms of sacrifice and energy expenditure.

And so I ask myself again: can entropic theory, which tends toward dispersion, confusion, chaos, and the waste of resources, be reconciled with an economic vision? I would say definitely not, absolutely not. Let’s consider the law of marginal utility. Marginal utility is that corresponding to the use of the last quantity of a good by the consumer. It tends to decrease as the use of the same element increases. Simple examples of the functioning of economic mechanisms confirm this fundamental law, a veritable constitutional charter that regulates the dynamics of goods and productive resources.

The law of the free market, that of supply and demand for a good, also works this way. It is a rule based on the principle of efficiency, the hedonistic principle: maximum result, minimum effort, no waste. Here too, if we assume the existence of a need for a fixed value, a constant, we propose that simple equation that regulates the relationship between syntropy and entropy.

Indeed, if the level of dispersion, waste, and inefficiency (excessively high costs, inadequate goods, monopolistic situations)—which we might consider to correspond to entropy—increases, the level of finalization, of obtaining the result, of fully satisfying the need (adequate cost, satisfied need) inevitably decreases. The hedonistic criterion will therefore not be respected, and with it, syntropy will decrease.

The law of marginal utility tells us, perhaps more than any other economic mechanism, how the criterion governing the world of production and consumption works and how it ultimately confirms the validity of the aforementioned equation, which aptly expresses the relationship between entropy and syntropy in the composition of energy.

Let's consider the consumer's use of successive doses of a good. A hungry person consumes food that satisfies their appetite. Suppose they are presented with a sandwich. It's obvious that the first bite will be more satisfying than the last, once hunger has subsided and the utility of subsequent bites decreases: the marginal utility curve will show a decreasing trend as the number of bites increases. It may even be negative if the consumer continues to eat until nausea sets in. In this case, inadequate consumption and the waste of resources could cause damage comparable to the "heat death" resulting from entropy.

A similar event could occur if we imagine a group of workers—painters, to be precise—intent on painting the walls of a room. Here we're talking about productivity, or, more precisely, marginal productivity. If we imagine an area of twenty square meters, we can assume that two workers will be able to paint the walls and ceiling at the end of the day. But if we begin to increase the number of painters in the room, then, exceeding a hypothetical maximum number of four workers (everything obviously depends on the size of the room, the type of paint, and the skill of the workers), we could assume that the productivity of each worker begins to decrease as the number of workers assigned to the job increases, until we even reach a point where the amount of work produced by the last painter becomes negative (e.g., if he drops the paint can, he also limits the productive capacity of the others).

The production function depends on the type and quality of the production factors used. The production isoquant clearly expresses the contribution of various factors to the total product, which follows a trend dependent on the means used, always, however,

determined by the hedonistic principle and therefore responding to a syntropic criterion of concentration, finality, and efficiency.

The image of these workers crowding into the room (there are at least four in a small space) and ending up reducing each other's production also conveys the principle of chaos and confusion, generated by entropy and causing the decreasing trend of the isoquant.

But even a simple housewife at the market follows the hedonistic principle in her purchases, a principle that clearly demonstrates syntropic finality, that synthesis which, for the housewife, consists of the concentration of effort, the best choice in relation to market prices.

No waste, no dispersion. The law of supply and demand allows the buyer to choose the best product at the most convenient price. A clear expression of the hedonistic principle and the affirmation of the syntropic criterion over the chaotic, randomized, and erratic criterion of entropy lies precisely in the constant dynamic between supply and demand for a good, which also tends to seek equilibrium, moving toward the optimal combination that, by establishing an adequate level, satisfies buyers and sellers.

And isn't this also a clear application to the economic field of the principle of syntropy that governs the cosmos?

And isn't that search for equilibrium that seeks satisfaction for everyone, consumers and sellers, a concrete example of syntropy adapted to the market, a demonstration that economic mechanisms, left to the free play of supply and demand, are capable of orienting themselves toward equilibrium, the final synthesis that abhors waste and inefficiencies? This is the syntropic principle that governs the world and therefore also the economy, its manifestation in the realm of production, consumption, and services. Naturally, this is true in the absence of monopolies, oligopolies, or monopolistic competition, which, by altering fundamental economic mechanisms, could unfortunately lead toward entropy, dispersion, and death.

However, today's society is extremely complex: globalization presents us with a diversified world, divided into various realities, with very different and extremely interesting ethnicities, living conditions, traditions, and cultures. In such a stratified environment, the transition from microeconomics, which governs individual behavior, to macroeconomics, which refers to large aggregates, such as total income, collective consumption, total investment, etc., is certainly inevitable.

Intervention by the state or supranational organizations to direct economic action toward collective and general goals then becomes inevitable.

History has shown that it is pure utopia to believe that, automatically, through the effect of the so-called "invisible hand" of Smithian memory, the economic system can reach the desired equilibrium, capable of satisfying workers and producers, buyers and sellers. The

principle of laissez-faire does not, by itself, create a harmonious condition of well-being for all but, as the Great Depression of 1929 clearly demonstrated, it generates imbalances, dispersion, and waste of resources.

Unsold goods left sitting in warehouses were an unmistakable sign of a steep decline in consumption, clearly reflected in low wages and, consequently, extremely low demand.

The Industrial Revolution presented us with a remarkable organic composition of capital, ever-increasing production. On the other side of the coin, however, appeared poverty, the extremely poor condition of the working class, which did not even allow for the satisfaction of basic needs. In Marxist terms, surplus labor creates a surplus value that compensates entrepreneurs, increasing profits, but penalizes workers. The extreme poverty of the first industrial revolution, the lack of any union protection, the absence of laws protecting workers, women, children, and workplace injuries, though improved over time, remained problematic when the collapse of Wall Street stocks revealed the final reckoning: stocks, having plummeted in value, constituted the barometer of the economy, telling that something was wrong, warning that increasing production was not enough if demand was inadequate.

The great economist John Maynard Keynes, also a monetarist, also faithful to Smithian microeconomic theories, began to reflect on the great crash: then the mythical principle of laissez-faire, that harmonious “invisible hand,” that automatic mechanism that brings the system to equilibrium, revealed its limits. It is therefore unthinkable that market participants, left free to act within their various categories (workers, entrepreneurs, producers, consumers), could, through the intervention of a desirable “invisible hand,” an automatic mechanism, almost a “*deus ex machina*,” find mutual satisfaction, a state of equilibrium that leaves everyone satisfied. Indeed, the harsh reality speaks for itself: needs remain unmet, poverty is rising, consumption is low, entrepreneurs see their profits decline: they don’t sell, they don’t earn. And so, in 1936, Keynes wrote a fundamental text on political economy: “*A General Treatise on Employment, Interest, and Money*.” This text was considered a true Copernican revolution in economics. If Copernicus and Galileo demonstrated that it is not the sun that revolves around the Earth, but precisely the opposite, Keynes demonstrates, by examining the movement of economic aggregates, that it is not supply that plays the fundamental role in the economy, but rather demand that governs it. We must therefore stimulate consumption, creating general conditions that will encourage it. In other words, state intervention is needed, which alone can and must address the general interest of the community, not the mere individual gain that generates entrepreneurial initiative.

Again, reflecting on the Great Crisis and Keynesian theories, I analyze the possible validity of syntropic ideas, the concepts of purpose, coherence, and order inherent in them.

Trying to get to the bottom of the matter, can we not argue that the pre-Keynesian economic system, based on the exclusive role of supply, production, and labor, was in fact doomed to failure because it was based on a flawed foundation, inadequately directed, inconsistent, and dispersive? Ultimately, it can be considered contrary to the hedonistic principle that provides purpose, that strives for results, but does so by seeking the best combination of means and ends, between instruments used and goals achieved. To think, instead, that supply alone regulates the economic world, doesn't this create a state of disorder, chaos, and dispersion, as occurs in entropy? It means, in fact, accentuating the preponderant role of one, ignoring the other, thus creating crisis, poverty, and collective misery. Neither entrepreneurs nor consumers will be satisfied if goods remain unsold; the crisis will spread like wildfire and strike at the very principle that governs the action of homo oeconomicus—that of efficiency—and will plunge him into a state of imbalance and chaos corresponding to the dispersing entropy. A sound economic approach would instead have advocated gathering, concentrating, and taking into account the two fundamental market variables in order to consequently create a state of general well-being.

Ultimately, even in the field of economics, following the Wall Street crisis, the same state of death, dispersion, disorder, and chaos that Di Corpo, rediscovering the theories of the mathematician Fantappiè, identifies in entropy, is resurfacing.

This consideration is undoubtedly valuable on a philosophical, political, and social level, as entropy delivers to a perpetual state of disorder, mutual conflict, narcissism, oppression, and arrogance—in short, to that Hobbesian world of eternal belligerence that induces humanity to abandon the state of nature to create a civil society. A society that, with Locke, becomes supportive and respectful of fundamental human rights.

Therefore, the so-called Copernican revolution in economics highlights the urgency of the role of the state in governing economic forces that, left to themselves, are incapable of balancing themselves within the dynamics of large aggregates.

And the State intervenes by encouraging demand, creating public works, and hiring a workforce that, adequately paid, will be able to meet family needs. It fulfills and must carefully carry out its task, aimed at achieving the fundamental goals for which it is responsible: economic development, counter-cyclical intervention during cyclical phases, and the redistribution of income in favor of the poorest groups.

Without dwelling on the complex and multifaceted functions of public economics and the science of finance, which require extensive discussion, we ask whether State

intervention can also be considered consistent with the hedonistic criterion that governs microeconomics.

It is certainly desirable; indeed, I would argue that in the case of public action aimed at satisfying the general interest, reference to this criterion is mandatory and essential.

Maximum results, minimum effort, maximum efficiency, finalization of outcomes. Here, we are no longer dealing with the individual's achievement of a goal (and therefore the impact of the results of his action on him). We are now dealing with an activity aimed at satisfying the community, an action whose consequences are felt by all. The hedonistic principle becomes a benchmark for the objectives to be achieved and requires an ethical assessment of the effectiveness of the action.

And so that parameter of syntropy, that finalization that is a tension toward the realization of common goals, that concentration of efforts aimed at the ultimate goal, becomes fundamental, indispensable, a promoter of well-being, mutual satisfaction, balance, harmony.

Not Smith's "invisible hand," not a "deus ex machina" descending from above with superhuman power, but rather service, collaboration, dialogue, collective action, always directed, however, toward the realization of those objectives that are aimed at the common good, that do not seek to waste and disperse, but rather to concentrate and implement an action that efficiently allocates resources for the well-being of all. This, I believe, in a nutshell, is the syntropic vision aimed at regulating the economy.