

On Entropy and Responsibility in the Thought of Ivan Illich

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Abstract

This paper explores the concept of entropy in Ivan Illich's overall thinking while delivering a dialogue with other authors. Our goals are twofold. First, we aim to point out how Illich's early work is relevant for critically thinking about entropy in its relationship to forms of social organisation and technology usage. Secondly, we point to how Illich's later works consider a planetary responsibility. By gathering matter, energy and information, technology is an ambiguous force of both hominisation and alienation, world-building and world destruction. For an early Illich, liberation from such new heteronomy was possible. The late Illich, however, adverts against the dangers of collective responsibility. The attempt to "save life" is a necrophiliac manipulation, dependent on a planetary extension of Promethean power. Instead, humankind must nurture the return of Epimetheus: a powerless relationship with the future that places hope as the constitutive force of the social fabric.

Keywords: Entropy, Responsibility, Technology, Ivan Illich, Hans Jonas, Bernard Stiegler

1. Introduction

The Aristotelian “function argument” is the position in ethics that argues that action should fulfil the ends attendant to the flourishing of human nature according to what is proper to it. Ivan Illich’s work as a whole, in addition to supporting and expanding Aristotelian reflections, aims to identify how the flourishing of human nature according to the ends of the good life has been greatly altered by the Promethean enterprise. Illich’s starting point is to acknowledge how human means and ends have been transformed by the historical process of Modernity due to the ongoing consummation of a techno-utopia.¹ The concept of entropy appears accordingly in Illich’s thought in the context of his critique of industrial societies, while also being connected to the evolution of the concept of responsibility. In this paper, we thus aim to discuss them while drawing on the works of Martin Heidegger, Hans Jonas and Bernard Stiegler, philosophers who have also reflected on the very same concepts.

Illich’s theoretical programme was guided by the primary aim of developing a critique entitled an “epilogue to the industrial age,”² achieved through a set of studies that could point out how the industrial mode of production and consumption is accompanied by mutations in language, myths, rituals and law, in order to conclude how it is structurally deleterious to the flourishing of human nature in the social background of culture.³ The belief in the combined powers of science and technology to provide human life with fitting benefits has been especially exacerbated since the Enlightenment. The assumptions of such beliefs include 1) the endless and desirable applicability of knowledge to reality, 2) the idea that technology is essentially an embodiment of knowledge and that it can provide appropriate ends, and 3) the full possibility of a domestication of nature, alongside confidence in the capacity of human reason to understand reality and anticipate the future.

Widely accepting how technology and institutions redesign moral agency and subjectivity and threaten autonomy understood as the gift of attributing meaning to the world around oneself, Illich’s proposal involves, above all, a feasible, intentionally marginal renunciation of industrial affluence accomplished through an art of living comprising, ascetic practices and convivial technologies. In this way, agency

1 Although the idea of paradise is common to all cultures and epochs, the West has succeeded in transforming an internal, individual idea of paradise, associated with moral progress and practices of religious observance, into an external possibility of paradise that can be constructed, produced and distributed in the course of historical time: techno-utopia. For the origin of the term, see Armand Mattelart, *História da Utopia Planetária* (Editorial Bizâncio: Lisboa, 2000).

2 Ivan Illich, *Tools for Conviviality* (New York: Marion Boyars, 2009a), ix.

3 “I’m interested in the symbolic fallout of tools, and how this fallout is reflected in the sacramental tool structure of the world”. Ivan Illich & David Cayley, *Ivan Illich in conversation* (Toronto, House of Anansi, 1992), 224.

and responsibility can be renewed, allowing flourishing to occur not *beyond* but *with* technologies. Already in the short 1967 essay, “A Call for Celebration,” the ever-increasing rationalisations blooming from the industrial system are held as severe impediments to “our thrust toward self-realisation.”⁴ The “ever-increasing powers of man” were considered impervious to the questioning of all “improvements in machinery, equipment, materials or supplies which serve to increase production and bring down costs.”⁵ For the first Illich, it was still possible to aspire to a liberation from the apparently omnipotent forces of the industrial age: “our freedom and our power are determined by our willingness to accept responsibility for the future”⁶ through the rejection of the internal logic to the aggrandisement of technological forces. The liberation and regulation of technological forces would be an educational task. The “call to celebration” is, therefore, about recovering all those qualities despised in the civilisational quest for more efficiency. It is a matter of recognising and accepting the fullness of the human condition, a “celebration of the humanity of man by uniting us all in the reconciling expression of our mutual relations and the growing acceptance of our own nature and needs [...]”⁷

For Illich, industrialization incurs in exceeding the limits proper to human nature, generating pollution, toxicity and social degradation. When a natural scale in human endeavours is exceeded, whether in the health system, the transport system or the school system, the search for increasing efficiency goals (more cured patients, more speed, more educated students) becomes a threat to society itself.⁸ Industrialization likewise pushes the knowledge needed to achieve such goals into the exclusive domain of an elite of specialists (the doctors, the traffic engineers, the teachers). Everything that used to be in the personal and collective domain of communities is usurped, with the consequent isolation and loss of meaning granted by one’s natural virtues and skills being curtailed. Only specialists will henceforth be able to decide how and in what doses of energy, health, mobility and education should be administered. Thus, individuals and communities are gradually converted not into full members of the *civitas*, but into customers of industrially defined needs, leading to the institutionalisation of values and to physical pollution, social polarisation and psychic impotence. According to Illich, this phenomenon is responsible for the loss of one of the intrinsic creative capacities of human beings and communities.⁹

4 Ivan Illich, *Celebration of Awareness* (London: Open Forum, 1971a), 16.

5 Illich, *Celebration of Awareness*, 16.

6 Illich, *Celebration of Awareness*, 17.

7 Illich, *Celebration of Awareness*, 17.

8 Illich, *Tools for Conviviality*, xi.

9 “Illich is a modern man who wants painstakingly to acknowledge the limits of his condition. This means that he wishes to live his life within the given boundaries of the *conditio humana*, the historic human condition that, with changes, but within definite parameters, has been the lot of all previous generations.” Jean Robert, “Energy and the Mystery of Iniquity,” in *The challenges of Ivan Illich: a collective reflection*, eds Lee Hoinacki, Carl Mitcham (New York: State University of New York), 184.

Above all it is the ability to give the world a personal meaning that is annihilated:

[...] industrialized societies can provide such packages for personal consumption for most of their citizens, but this is no proof that these societies are sane, or economical, or that they promote life. The contrary is true. The more the citizen is trained in the consumption of packaged goods and services, the less effective he seems to become in shaping his environment.¹⁰

The increasing expansion of industrialisation and institutionalisation makes reality itself refractory to being engaged by the personal sense of the agents, by an original and founding experience. According to Jacques Ellul:

Technical progress causes the amalgam of attitudes, customs and social institutions that make up a community to disappear. On the one hand, established communities break up, and on the other, new communities cannot be formed. Man loses his social and community sense in contact with technology, while the frameworks on which he rests are shattered by technology.¹¹

Illich has attempted to counter the base assumption that the moral and communal dimensions keep pace with the addition of increasing levels of energy consumption and the fictitious needs that arise with it. There is a domain prior to these quantitative improvements, the *vernacular*, in which communities manage and satisfy their needs according to the actual contextual possibilities to which they have access.¹² In 1986, he addressed the first public meeting of the Entropy Society Tokyo with a lecture titled “Disvalue” that he later arranged with other previous texts.¹³ It is worth mentioning how the lecture was destined to pay homage to Joshiro Tamanoy, a Professor of Economics who translated Karl Polanyi into Japanese. Polanyi influenced Illich by underlining how market forces, before becoming autonomous and ever-growing, have been kept at bay in traditional cultures and many communities.¹⁴

10 Illich, *Celebration of Awareness*, 161.

11 Jacques Ellul, “Autonomização da Técnica,” *Flauta de Luz - Boletim de Topografia* 2 (Portalegre: 2014), 41.

12 Illich characterizes commodification (*Verdinglichung*) along the lines of Karl Polanyi as the process by which the effects of industrialization extract communities of their goods and convert them into commodities and values. Illich reaffirms how *vernacular* practices, by contrast, are those practices common to any communities and yet alien to the takeover of the social sphere by the economic sphere. The limits to the expansion of human needs are there safeguarded by the innate capacity of communities to satisfy themselves according to their own resources.

13 Ivan Illich, “Disvaluation: The Secret Capital Accumulation” and “Beauty and the Junkyard,” in *In the Mirror of the Past: Lectures and Addresses 1978-1990* (London: Marion Boyars, 1991), 70.

14 See also the classic essay by E. P. Thompson, “The Moral Economy of the English Crowd in the Eighteenth Century,” *Past & Present* 50, (1971): 76–136. <http://www.jstor.org/stable/650244>.

The term entropy was used by Joshiro Tamanoy himself first and foremost as a borrowed term from other subject matters. Like Augustin Berque's *milieu* (a translation of *fûdô*), entropy worked in Tamanoy's philosophical anthropology as a concept to examine the evolving relationship between historical spaces and physical places where human perception plays a role in assigning them symbolic meaning. Concurrently, for Illich, this approach builds a "philosophy of soil" that frames reason as situated in a cultural body in a concrete environment. It necessarily comprises an aesthetic and normative order in the sense that places can be perceived and judged to be disturbed because of various objective factors that threaten its biotic matrix, like pollution, wastefulness, soil erosion and deforestation. To speak about an event such as a destroyed landscape and the ruined livelihood of its people, as implied in an "increase of entropy", is not to be precise or exact, but to employ technical terms that "extinguish its moral meaning"¹⁵ by way of a reductive analogy. It additionally excuses human evils like carelessness, greed and excess by placing them under the spell of a natural necessity.

For Illich, employing entropy to describe human events implies a risk of easily abusing a scientific metaphor to coin a given cultural trajectory as "natural." Disvalue, on the other hand, speaks about a normative, rooted in the lifeworld phenomenon. Disvalue implies a degradation of value, as entropy implies a degradation of energy. If applied to social and economic degradation, it speaks about a "loss of beauty, of autonomy and of that dignity which makes human labour worthy." It is about the "wasting of commons and culture with the result that traditional labour is voided of its power"¹⁶ Illich wanted to point out that while all human cultures produce entropy, some human cultures can still have a net contribution to the cosmos that is not subsumable under an entropic "waste." In vernacular cultures, commons like water and soil are not destroyed. On the other hand, optimizing energy, information and money flows are procedures proper to formal economies as a hallmark of progress. Given that such flows all seem to follow the same rules, the laws of entropy seem to apply indiscriminately to all of them. The growth of productive capacities can then be equated with a growth in more values. Disvalue, not entropy, names the resulting debilitating effects of the necessary arrangements for increasing such flows. It concerns the personal, social and local disintegration that occurs to vernacular practices alien to entropy analysis that are proper to substantive economies where the *good*, not *values*, are the ends of production.

15 Illich, *In the Mirror of the Past*, 73.

16 Illich, *In the Mirror of the Past*, 76. The parallel with the Stiegler's notion of "proletarianization" is tantamount. See Bernard Stiegler, *Nanjing lectures 2016-2019*, eds., and trans. Daniel Ross (London: Open Humanities Press, 2020), 17.

2. Hoping and Expecting

For Illich different productive systems comprise distinct balances between the role of conviviality¹⁷ and the manipulation of needs by industrialisation and concurrently between the virtues of *phronesis* and *techné*. Each productive system favours an image of man, and in liberal democratic societies, the demands of the industrial system of mass production stagnate proper human flourishing by stuffing it with ready-made commodities: such is the endgame of the rise of a Promethean man. Unlike it, the Epimethean alternative cannot become the object of planning or production. Illich uses these mythological figures to establish an analogy with mankind vis-à-vis its relationship with technology. The starting point centres on how Pandora, etymologically the “giver of all gifts,” inadvertently allowed all the evils to escape from her amphora and invade the world, closing it just in time to shut hope inside. About the pre-modern mentality and the radical idea that the world is predictable Sloterdijk comments that:

[...] Things always happen differently from what is thought. For although it may be up to men to think, the decision remains, in any case, the business of the gods. If things happen normally, then they happen differently - this is the a priori of the practical experience of life in the ancient world, which cannot forget for a minute that human plans and acts move within the vat of an unsurpassable passivity.¹⁸

With the scientific revolution, sublunar matters happen as one thinks of them. Sloterdijk notes that “the ecology of power (*Macht*) and human powerlessness (*Ohnmacht*)” has been shaken by Modernity. The Promethean spirit claims to take upon itself the organisation of the world according to a rational plan. Modernity lets itself be understood as a *degradation of Pandora’s myth*: it consists of the Promethean regimentation and mobilisation to fashion institutions that could capture all those stray evils so that they might return to the amphora again. For Illich, this means the *disappearance of hope and the rise of expectations*. What, however, is hope and how is it distinguished from expectations?

Hope is a trust in *physis*, in nature, in the way it unfolds beneficially for man, but without this trust

17 “I choose the term “conviviality” to designate the opposite of industrial productivity. I intend it to mean autonomous and creative intercourse among persons, and the intercourse of persons with their environment.” Illich, *Tools for Conviviality*, 11.

18 Peter Sloterdijk, *Eurotaoismus Zur Kritik der politischen Kinetik* (Frankfurt am Main: Suhrkamp, 1989), 21 [author’s translation].

depending on calculability or planning. It thus cannot be brought about by a means-ends thinking.¹⁹ There is hope in others, in the way a gift is expected of them, together with the acceptance that this gift may never appear. Expectations, however, induce a trust whose principle is in something that is *likely* to happen, since they are strictly bound to outcomes that are controlled and planned by man. Expectations look to the future as an abstract space to be built based on productive and predictive processes. The Promethean approach to reality has induced the disappearance of hope. For Illich, the very survival of man depends on the rediscovery of hope as an impregnating force of the social fabric. If the future is, in fact, not entirely calculable, hope is an assertion that the world, in its contingency and unpredictability, is certainly terrible and cruel but will still always remain welcoming and magnanimous. For Illich, human freedom itself only becomes intelligible with the existence and acceptance of a benign contingency. Praxis and flourishing, in being exposed to fortune, must presuppose hope.²⁰

The disappearance of hope and the acceptance of the contingency it implies was parallel to the advance of the Baconian programme. Its basis is the belief in the reliability of calculation and planning as a means of eliminating present and future obstacles. It meant a growing responsibility for the advancement of the *nomos*, simultaneous with the erosion of trust in *physis*. The rise of expectations has, however, overshadowed the ambiguity with which Pandora, guardian of hope, has unleashed not only evils but also goods. Expectations rage in an industrial system that has raised to new heights of exactitude the causal productive processes that have shortened the distance between what is desired and what is made. Their success means the occlusion of Epimetheus by the Promethean enterprise, the reduction of the future to a process entirely written by mankind, and the distrust of what escapes such overdetermination:

When values have been institutionalised in planned and architected processes, members of modern society believe that the good life consists in having institutions that define the values they and their society believe they need. Institutional value can be defined as the level of productivity of an institution. The corresponding value of man is measured by his ability to consume and exhaust this institutional production.²¹

19 Stiegler seems to depict an Epimethean image of mankind when he states that “Negentropy is an object of belief because it is the improbable possibility of a bifurcation – improbable because not calculable.” Bernard Stiegler, *Nanjing lectures 2016-2019*, eds., and trans. Daniel Ross (London: Open Humanities Press, 2020), 35.

20 “Contingency means, on the one hand, negatively, that the future is not necessary, that everything that happens in a contingent world might not happen or happen otherwise, and is therefore essentially uncertain, as well as always being subject to chance or fortune; on the other hand, positively, that the agent can choose, and must choose, at every instant between different possible actions.” José Manuel Santos, *Introdução à Ética* (Lisboa: Sistema Solar, 2012), 186, [author’s translation].

21 Ivan Illich, *Deschooling Society* (New York: Harper & Row, 1971b), 48.

Hope is then a (self-)approval and acceptance of the perpetual uncertainty that runs through human lives. Note that the sense of hope to which Illich alludes to is based on the full acceptability of the contingency of the world and of how being is irreducible to the units used to represent it within systematic planning. The appeal is that the importance of expectations can be tempered with hope so that human beings do not become prisoners of representations based on calculability. The parallel with Heidegger is undeniable:

[...] What has long since been threatening man with death, and indeed with the death of his own nature, is the unconditional character of mere willing in the sense of purposeful self-assertion in everything. What threatens man in his very nature is the willed view that man, by the peaceful release, transformation, storage, and channelling of the energies of physical nature, could render the human condition, man's being, tolerable for everybody and happy in all respects.²²

This is a point where Jonas, Stiegler and Illich differ on the role of human responsibility for the future of life on Earth.²³ Hope is based on the acceptance that there are necessary facts intrinsic to human nature and on the notion of an unfulfilled personal destiny towards flourishing. In its place, solvable problems and the openness to permanent self-determination have arisen. Illich asserts that classical man had already problematised such a worldview:

[...] In classical antiquity, man had discovered that the world could be made according to man's plans, and with this insight he perceived that it was inherently precarious, dramatic and comical.²⁴

For classical man, going beyond certain limits incurred in *hubris*, the result of which would lead to punishment. Contemporary man goes far beyond this feat because problem solving has become an historical destiny and the very way of taking up reality. Expectations acquire institutional status and the world acquires the image of a continuous removal of obstacles in order to remove the oppressive structures that prevent the true nature of man from shining forth. Ernst Bloch's formula, *S is not yet P*, is a case in point. It unveils the historical task of assigning the predicate to the subject, i.e., realising

22 Martin Heidegger, "What are Poets for?" in *Poetry, Language, Thought*, trans. Albert Hofstadter (New York: Harper Collins Publishers, 1971), 114.

23 Stiegler has also addressed the need to overcome the Anthropocene, a "vast, systemic and extremely rapid process of increasing entropy" that also corrodes social systems through a digital disruption. Stiegler, *Nanjing Lectures*, 10.

24 Illich, *Deschooling Society*, 47.

true humankind by means of the elimination of all social and material constraints, taken as the very fundamental source of conflict and inequality.²⁵ The titanic task of the *S is not yet P* formula is nothing less than to make true man shine by removing everything that had hitherto constituted the old man and which, as such, was not of his own making. On these matters, Mircea Eliade comments:

Modern nonreligious man assumes a new existential situation; he regards himself solely as the subject and agent of history, and he refuses all appeal to transcendence. [...] Man makes himself, and he only makes himself completely in proportion as he desacralizes himself and the world. The sacred is the prime obstacle to his freedom. He will become himself only when he is totally demysticized. He will not be truly free until he has killed the last god.²⁶

Hans Jonas's criticism²⁷ of Ernst Bloch's principle of hope (*Prinzip Hoffnung*) in his *Das Prinzip Verantwortung* should not be seen as a position opposite to the concept of hope of the first Illich. Bloch's entire work is based on the assumption that utopia can be planned, built and erected by man throughout history: hope, here, consists of the unshakeable belief to bring about an *expectation*. The commitment to *hubris*, however, is so successful that man ends up becoming his own tormentor through the self-frustrating forces of counterproductivity he unleashes in trying to tame the future²⁸: the attachment to control that aimed to banish uncertainty ended up recreating it. Surrounded by technologies whose ends he had thought were subject to his will, man observes in them a new rebellion. Uncertainty returns

25 "The third confrontation between exigent utopia and the common pulse of Western life occurs with the rise of messianic socialism. Even where it proclaims itself to be atheist, the socialism of Marx, of Trotsky, of Ernst Bloch, is directly rooted in messianic eschatology. Nothing is more religious, nothing is closer to the ecstatic rage for justice in the prophets, than the socialist vision of the destruction of the bourgeois Gomorrah and the creation of a new, clean city for man". George Steiner, *The Blue Beard's Castle* (New Haven: Yale University Press 1971), 43.

26 Mircea Eliade, *The Sacred and the Profane: The nature of religion*, trans. Willard Trask (New York: Harcourt Brace Jovanovich, 1987), 203.

27 "[...] no knowledgeable person can seriously believe that, with a certain set of contrary stimuli removed, people everywhere will become good-natured, unenvious, fair, brotherly, even loving toward each other to a hitherto unknown degree [...]" Hans Jonas, *The Imperative of Responsibility. In Search of an Ethics for the Technological Age* (Chicago: University of Chicago Press, 1984), 160.

28 Counterproductivity is the term with which Illich classifies what happens due to the disproportionate use of technology. The use of a technology beyond certain limits results in effects that are destructive to the ends it was originally intended to fulfil. This property, whereby the ends that a technology is intended to achieve become negated by its own continued use, has been noted in several of his works. The interest in the idea of a natural scale and appropriate limits stems, however, from Illich's familiarity with studies on the morphology of organic forms in the works of D'Arcy Wentworth Thompson, J.B.S. Haldane and Leopold Kohr, whose influence led to the identification of counter-productivity as transversal to various institutional systems, resulting in Illich's assumption that a common life should be founded not on abundance but on parsimony.

but this time it is composed of anthropogenic factors.

The increased relevance and prominence of science and technology is thus translated into the value of productive growth as the supreme social motive for conquering the future, with a view to distributing and intensifying the fruits of Pandora. Having access to more and better quantities of energy, information and capital is the contemporary assumption stemming from Bacon's programme. In this way man is led to the worship of new rites related to the myth of calculability and the planning of a permanently "open" future. In tones similar to those of Jonas, Illich exclaims that:

[...] the exhaustion and pollution of the earth's resources is above all the result of a corruption in man's self-image and a regression in his consciousness. This institutionalisation of substantial values, this belief that a planned treatment process ultimately brings results wanted by the recipient, this consumer ethos is at the heart of the promethean fallacy.²⁹

In common with Ellul, Illich then sees in technological society a perversion of Christian ideals: *corruptio optima quae est pessima*.³⁰ The engineering *ethos* as the science of the most efficient optimisable means is the common root of technologies and sacraments. The correspondence between ecclesiastical rites and today's institutional predictive rites has the same discrepancy between beliefs surrounding the purpose of these rituals and their real, effective power.³¹ In the case of contemporary industrial institutions, the collective and social beliefs about the effective power of the school, medical, and transportation systems relate to their alleged causal efficacy in providing access to moral and political progress. When the counterproductivity of such institutions becomes flagrant or is not supported by rankings, the solution is usually to intensify access to the rites themselves. For Illich, the industrial attempts to reap social benefits by injecting more energy, health or information beyond a certain limit are bound to fail. Society must be grounded not on abundance, but on conviviality, that is, an appropriate interdependence between tools, institutions and social relations that allows human flourishing.

The etymology of Prometheus and Epimetheus respectively mean one who looks forward, in foresight, and one who looks backward, in hindsight. Illich's appeal has then to do with the de-institutionalisation

29 Illich., *Deschooling Society*, 48.

30 The process by which the vernacular satisfaction and subsistence was converted into the satisfaction of expanding needs through access to acceptable universal levels of services and goods, distributed and secured according to the objectives of production. For Illich, industrialisation is a phenomenon of church history, a chapter of ecclesiology.

31 Like a rain dance: "a way of warding off evil that at the same time domesticates it by making it appear to be in the dancer's power. Evil, for Illich, is not manageable; and such things as nuclear weapons, genetic manipulation and the chemical transformation of earth and atmosphere by industrial poisons are evils, not problems." Illich, *Ivan Illich in conversation*, 51.

of values through the ending of the Promethean enterprise, freeing this ancient god from the fetters that bind him. Abandoning Promethean demand consists in a voluntary departure from expectations and an entry into a hope that safekeeps the future. The abandonment of Prometheus is not a refusal, but a fraternal joining with its hindsight brother. The Epimethean man that Illich nurtures is the one who, learning from the past, lets the future arise without expectations. For Illich, the progressive technologisation of the world is parallel to the irrelevance of the displaced tradition, namely Christianity. It implies an axiological translation that runs through all material abundance: the transformation of all the ends of human life into technically attainable ends via the materialisation of values becomes something that man must actively oppose under penalty of this promise of salvation through technology becoming his own scaffold:

[...] enveloped in a physical, social and psychological milieu of this own making, he will be a prisoner in the shell of technology, unable to find again the ancient milieu to which he was adapted for hundreds of thousands of years.³²

For the first Illich, ecological equilibrium can only be re-established when the importance of the ends proper for human lives could subdue the march of technology. In his early works, he called for an exercise of a “power” that could counteract the historical emergence of an open, external notion of perfectibility on the horizon of technological intervention, heir to the anthropological optimism of the Enlightenment. The techno-utopia has caused the replacement of the traditional “slow” ways of ethics and politics furthering the good life, in favour of allegedly prompter means. Similarly, Jonas trusted in resolving this imbalance by reforming ethics and politics in order to safeguard the future of life on Earth. Jonas’s proposal for an ethics of responsibility concerns the regulatory exercise of a third-order power by a collective agency, responsible for establishing the measure of a consensual relationship with this second-order power, which is out-of-control technology.³³ Also, for Stiegler, there is an “incommensurable responsibility” to counter entropic destructiveness and “to know if we can predict and, if possible, orient the evolution of technics” in order to “save humanity.”³⁴ Accordingly, for an early Illich, liberation from the new heteronomy was also still possible.

32 Illich, *Tools for Conviviality*, 51.

33 Jonas, *The Imperative of Responsibility*, 142.

34 Bernard Stiegler et al. “The school of tomorrow,” *Journal of the CIPH* 97, no. 1: 119–135; *Nanjing lectures*, 125–128.

3. The Age of Systems

In order to understand the shift regarding Illich's notions of responsibility, we must refer to what is understood as the age of systems as surpassing the previous age of tools. The latter depicts a relationship with technology that still allows one to conceive of oneself as separate from them. Tools, for example, are the object of a choice: they can be used and, in any case, abandoned. In this way, they lend themselves to a consent in use that does not completely get a hold of the subject.³⁵ In the age of systems, however, the use of technologies implicates the subject to such an extent that he necessarily becomes *part* of the system. Several of Illich's analyses of the background context of the age of systems consist of a historical and conceptual examination that forward how several technologies configure today one's self-experience of the body and health as well as language and the gaze. The extension of the *corruptio optima* follows such transformations equated as deliverance from various burdens. In the background of such corruption, a marginal possibility of various ascetical practices might still grant a surrogate of the autonomy of action and responsibility beyond such systems.

The age of systems also represents a way for Illich to reassess his previous oeuvre. In these works, despite the school, transport and health systems promoting an image of man as a *client*, one assumed that human beings, as free-willed beings, could always evaluate how tools suited or did not suit a search for the good life. In the following works, however, Illich considers that in view of the plasticity of the word "system" and the internalisation it implies, the former anthropological condition of autonomy immanent to the domain of the vernacular was seized.

Whoever conceives of himself as a "system" interacting with other "subsystems" integrated into the global system, whether of the economy, or of "energy" and "information" exchange has succumbed to the implicit objectification of the language that accompanies a mob of new icons and their minimum requirements. The split in the relationship with the concrete of nature and with communal practices, i.e., with the domain of the vernacular, gives rise to a progressive mathematisation and algorithmisation of life:

³⁵ Jonas has also pointed out this by drawing two analogies to sharpen the contrast between ancient technics and technology. The former grants a choosing, a relation between knowing and doing, between holding an artefact and using it, while the latter does not. The grip of technological innovation and development on society and daily life is such that one cannot choose anymore to be enmeshed in it. The correct analogy is the choice between being able to breathe and having to breathe. Hans Jonas, *Técnica, Medicina e Ética. Sobre a prática do princípio da responsabilidade* (São Paulo: Paulus, 2013), 31, [author's translation]. Jacques Ellul has also underlined how given that "technique is not an instrument of our will, a tool to which we can use according to whim, our conviction that man remains in control is undermined."

People annihilate their own sensual nature by projecting themselves into abstracta, into abstract notions. And this renunciation of intimate uniqueness through the introjection and self-ascription of statistical entities is being cultivated with extraordinary intensity by the way in which we live.³⁶

The comprehensive totality of the multifarious phenomena of industrialisation surprised Illich himself and led him to announce in the early eighties the emergence of a new epistemic condition, based on the previous ones, but distinct from them:

[...] there has been a change in the mental space in which many people live. Some kind of catastrophic breakdown of one way of seeing things has led to the emergence of a different way of seeing things.³⁷

[...] we are not speaking any longer about populations in the old sense. We are speaking about systems, and the elements of a system. You can tell me that technically the statistical tools used in both types of discourse are the same. I believe that the metaphors by which they are interpreted are new.³⁸

Illich foresaw how the expropriation of the vernacular domain had extended to the subject's most intimate experience of self.³⁹ The scientific worldview superimposes itself on the idiolect, impoverishing singular words and experiences by reference to the univocity and one-dimensionality of a new and abstract worldview that procures a representation alien to the lifeworld of common sense. According to Illich, entropy⁴⁰ is another term by which the social and the natural are conflated into an abstract realm with no meaning.⁴¹ It is a non-word by which "social degradation appears as just another instance of a general natural law." This is how evaluations about the deadening effects performed by social institutions towards human ends become akin to an assessment of natural systems of information and

36 Ivan Illich and David Cayley, *The Rivers North of the Future. The testament of Ivan Illich as told to David Cayley* (Toronto: House of Anansi, 2005), 222.

37 Illich and Cayley, *The Rivers North of the Future*, 222.

38 Illich, *Ivan Illich in conversation*, 170.

39 "People more and more interpret their own body and feelings according to the model of the computer, and no longer according to the still very traditional model of the 1960s." Illich & Cayley, *Ivan Illich in Conversation*, 142.

40 Illich, *In the Mirror of the Past*, 72.

41 "The term gives off a halo of evocation that, unlike the meanings of sound words, is vague and arbitrary. When 'entropy' appears in a political statement the usage gives the impression of being scientific while in fact it is probably meaningless." Illich, *In the Mirror of the Past*, 74.

energy flow. When entropy and other technical concepts are used to understand society, the realm of freedom and human dignity and the realm of the lawfulness of nature are bridged: *human responsibility is excused by evoking naturalness or cosmic necessity*. Ultimately, Illich turns our attention to the appropriate limits of the metaphors provided by scientific concepts like entropy. Judgements about destruction and degradation of places and cultures need words, not technical terms because otherwise their moral import is lost. As argued, the translation of entropy as disvalue can overcome its deterministic meaning and stress the contingency with which self-limiting vernacular cultures become proletarianized: disorganized, morally deskilled and rendered incapable of using their internal knowledge. In hindsight, Illich's task consists in understanding how knowledge, in its multiplicity of forms, can be embedded in vernacular forms of life that do not consider objects of knowledge as detached from their underlying context.⁴² The question concerning entropy is then primarily about an *epistemic loss* whereby the scientific rationalisation of societies turns the good, what is desirable, into values ranked and provided by technologies.⁴³

Among the new terms and expressions coming from an outside, detached, objective view of the world, one finds the idea of an *individual responsibility for the salvation of the planet* or the way in which communication comes to be seen under the concepts of *information exchange*.⁴⁴ Responsibility itself thus began to change and finally to be commodified. This reading of the relationship between responsibility and "life" puts Illich in a similar position to Heidegger,⁴⁵ but quite different from Hans Jonas's ambitious

42 To use a term from Stiegler, the vernacular forms of life are *negentropic*; that is, they still possess an acute notion of the limits within which the biotic matrix as the ground of relationships that guarantees the economy, customs and morals is preserved. It is only by a subsequent abstraction that knowledge is taken as independent of a ground of subsistence, existence and consistence. This is a limit on the absorption of *savoir-vivre* and *savoir-faire* by the force and charisma of mathematical and scientific knowledge. Stiegler, *Nanjing Lectures*, 13–18.

43 Concurrently, Stiegler underlines the interdependent triumvirate of technologies, social relationships and subjectivities by stating that knowledge is *always* constituted by technics, *which in so doing always constitutes a social relation*. Bernard Stiegler, *The Neganthropocene*, ed. and trans. Daniel Ross (London: Open Humanities Press, 2018), 183.

44 Arnold Gehlen had already noticed how one of the effects of the great successes of science and technology are the expansion of technical standards of thought and the positivist colouring of the vocabulary. Both are concurrent to enfeeblement of the true sense of personal responsibility, insofar as the idea that the destiny of the West depends entirely on the effort of one's participation and mobilisation, as if we were impelled to control morally the misdeeds of the world and to be permanently on a state of alert about what is going on in it. This is symptomatic of our Promethean sensibility and our clinging to control over reality. Arnold Gehlen, *Man in the Age of Technology* (New York: Columbia University Press, 1980), 75.

45 "[...] the cry of alarm, often raised until just now, namely that the course of technique must be mastered [...] this cry bears witness in itself to the apprehension that is spreading. It ignores the fact that a demand is expressed in technique which man cannot prevent from being fulfilled, which he can still less see and master." Martin Heidegger, *Língua de Tradição e Língua Técnica* (Lisboa: Instituto Piaget), 27, [author's translation].

position about controlling technology.

The industrial system hence gives rise to various abstractions whose governing concepts have at their core the representation of the term “life.” Life is no longer that ontological irreducibility of the living, but something that, when represented systemically as a property, becomes administrable and governable. In various European languages the term “life” has then come to be used in a vague, plastic and imprecise way that threatens to become a new idol. Such “life” is thus about what someone is and undoubtedly *has been* and yet no one says of themselves that they are “life.”⁴⁶ An idol, for a Christian, has a precise meaning. It means a human creation to which worship is offered and powers that transcend human powers are attributed. This usage, however, differs from the indexical and substantive usage of the term “life” with which one speaks about someone or some animal or plant. This indexical use of the word life goes back, in Western history, to the quality of a singular relationship that can be established with Christ, like when Jesus said to Martha “I am life.” Life there corresponds to the *quality of a vivid relationship between two beings*, a concrete quality not mediated by a system. The argument is historical and not theological:

[...] to turn an attribute created by that man in Galilee to designate himself into an object which you manipulate, for which you feel responsible, which you manage, is to perform the most radical perversion possible.⁴⁷

To employ the term “life” is thus to reify a property of beings that simultaneously leads one to be oblivious to their singularity and allows their management. Upon this new use of the terms “life” and responsibility various considerations are made about its scope in the discourses of law, medicine and ecology. “Life” becomes first of all an abstract way of talking about people, a logistical term:

[...] doctors now feel responsible for a life, from sperm to worm, or from fertilization to organ harvest, rather than for a suffering person [...] what happens when a “life” becomes a subject within the state, or a life becomes a citizen [...] when medical management no longer deals with persons but with a manageable construct from before birth to after brain death.⁴⁸

The use of the word “life” seems, moreover, to be able to portray any context as “ethical” or as one prone to “moral consideration.” In environmental ethics or ecology, on the other hand, “life” is there used to illustrate how the planet itself “throbs with life” and how such life is more than ever threatened, so that it is important to “protect and safeguard life.”

46 Illich & Cayley, *Ivan Illich in Conversation*, 255.

47 Illich & Cayley, *Ivan Illich in Conversation*, 256.

48 Illich & Cayley, *Ivan Illich in Conversation*, 258.

4. Global Responsibility

The similarity with Hans Jonas's line of argument and his heuristics of fear should be recalled. It is important to distinguish that Illich's critique does not refer to ecology as a science that studies the interrelations between habitats and living beings. Illich's theoretical concerns relate to the way in which the word "life" circulates in the discourses of ecology as a means of promoting activism and political claims to "save the planet," but also figures in various national and international reports with undeniable importance in public policies. The term "life" is used there almost as a form of advertising with a view to persuading *a more effective management of resources and the protection of ecosystems*.

The point is that the term "life" does not refer to any content. It is equated with a figure of a new idol that rouses, in an imprecise sense, a "generic fear" and that leads to the establishment of a new "responsibility" towards the "abstract life" on Earth. This notion of "life" thus brings with it the figure of the manageability of the planet itself, of turning the relationship between the human city and the ecosystems into something manageable, but which at the same time obviates the concrete and vivid character of life itself.⁴⁹ The fact that life and the planet become objects of salvation makes their otherness simultaneously petrified and dependent on a planetary care provided by man.⁵⁰

For Illich, this treatment of "life" is deeply necrophile because it idolises mere survival as an end. As a vague and abstract concept, the term "life" becomes, in its plasticity, easily manipulated because it invokes a disparity of distinct entities: when speaking of "life" one can refer to planet Earth, a cell, a molecule, a child or an endangered species. The mediation of scientific images plays a fundamental role in the design and creation of the sublimation of this new anthropocentrism: one is exposed to the image of the planet Earth as photographed by a satellite, as one is exposed to the images of fertilised cells and zygotes. All these images are "life," an assertion corroborated by scientific facts, but of which no one has an experience except through instrumental imagery. There is a gap between the self-perception of the internal, first-person experience of self and the objectivity of these images given from

49 It therefore implies manageability not of what's good but of what we want to conserve. It emphasizes survival, not aliveness. Illich & Cayley, *Ivan Illich in Conversation*, 262.

50 This is actually one of the points of Agostino Cera's most recent book. The Anthropocene implies a process of Pet-ification of Nature by which the difference between the natural order and the human order vanishes in a new worldview whereby the former is collapsed under the later through a will-to-care. Agostino Cera, *A Philosophical Journey into the Anthropocene. Discovering Terra Incognita* (New York: Lexington Books, 2023), 159.

the external, third-person perspective.⁵¹ The images of “life” become gateways to something that no one can experience, but which simultaneously hold the power to justify, in their own name, any intervention and sacrifice to be made in the name of global management. The occlusion of the sense of what life is in its immediate encounter is concomitant with the power of “life” as a construct: here is the figure of an uprooting brought by the representations of “systems” and associated technologies.

The term “life” is thus a new idol of modern times that strengthens the separation between facts and values. Only after the “death of nature” that arose with Modernity, i.e., the loss of its vivid, contingent and teleological character as invested and created by God, was an empty space created that could be filled with a “life” that is above all manageable as an object, i.e., it can be governed, produced and even optimised: these hinges on the idea of “man taking charge of man and the cosmos.”⁵² Illich interprets the secularisation of European culture as an absence that paved the way to a view of “life” not as something that was bestowed and received, but as something that can be now permanently created and for which one is henceforth responsible. Human Promethean authorship and the making of the world are now elevated to a process of constructed omnipotence that rejects any criticism about the uses of such power. The contingency that was previously distinctive of the world as a divine creation becomes, at last, a function of human management. Not only the world but also populations will now be managed: such is the ultimate and terrible sense, for Illich, of responsibility:

[...] here you have the ultimate realization of the idea that man makes the world. The idea that everything can be made derives from the heritage of Francis Bacon, and the more powerful this idea becomes, the stronger grows that strange word responsibility.⁵³

That is, a word that once used to designate legal liability for a harmful effect on some other subject attains, as in Hans Jonas, a global scope that becomes emptier the more generic it becomes, but whose starting assumption is that man holds a power that ought to be exerted over the totality of the world. Carl Mitcham’s historical study of the term “responsibility” is in this respect demonstrative of the way in which technology has become increasingly prominent:

The promotion of the abstract noun ‘responsibility’ to linguistic and cultural prominence - even

51 In the same way, the practical knowledge of the prudent man has its own validity. It is additionally a reflexive knowledge that the agent has about himself and about what is good or useful for himself (*autô*). This contrasts with the knowledge required to subsume the things of nature under a general causality as in production or of incorruptible and eternal beings, as in science. Santos, *Introdução à Ética*, 184.

52 Illich & Cayley, *Ivan Illich in Conversation*, 269.

53 Illich & Cayley, *Ivan Illich in Conversation*, 269.

while the reality to which it refers may not have been wholly without premodern recognition - is thus a phenomenon easily associated with issues of power and reality correlated with the rise of technology to social and historical dominance.⁵⁴

The assumption that humanity holds a responsibility for the world is the logical conclusion of anthropocentric humanism that sees in science the means by which responsibility can be translated into the salvation of the planet vis-à-vis the improvement of processes and the material circumstances of humanity. In contrast to Hans Jonas's position, Illich's assumption, similar to Heidegger's, is that any possibility of liberation from the significance of technological advance must first *fully understand and accept the fact that it is not in man's hands to prevent such epochal development*. Only in this way can one truly understand the extent of the transformation of the world that is under way:

No single man, no group of men, no commission of prominent statesmen, scientists, and technicians, no conference of leaders of commerce and industry, can brake or direct the progress of history in the atomic age. No merely human organization is capable of gaining dominion over it.⁵⁵

The idea of responsibility for the Earth is therefore paradoxical, insofar as only an industrial system that claims the feasibility of a planetary management can claim to be able to raise it as an effective moral injunction to every member of a "planetary" community. There is something sacrilegious in the idea of "responsibility for life": becoming responsible for it means the rise of a concomitant power leading to its conservation, recovery and, finally, improvement and perfectibility. Scientific images of life thus hold, like gateways, a way into nothingness understood as a cosmos that is dead because it is made in the image of man: "life becomes the ultimate purpose of history" [...] a negation of the God who took on flesh and who redeemed us."⁵⁶ By assuming himself as responsible for life, man paves the way for the appearance of rational planning and the "making of life" on the planet. Today's responsibility becomes an unjustifiable expansion of the ethical, understood as an optimal theory of action and decision⁵⁷: "in a world which worships an ontology of systems [...] ethical responsibility is reduced to a legitimizing

54 Carl Mitcham, "Introduction: Technology as a Philosophical Problem," in *Philosophy and Technology. Readings in the philosophical problems of technology*, eds. Mitcham, Carl and Mackey, Robert (New York: The Free Press, 1983), 3.

55 Martin Heidegger, *Discourse on Thinking*, trans. John M. Anderson, and E. Hans Freund (New York: Harper & Row Publishers, 1966), 52.

56 Illich & Cayley, *Ivan Illich in Conversation*, 270 and 276.

57 "Responsibility took on the semblance of ethical power over ever more distant regions of society and ever more specialized forms of 'happiness-bringing' service deliveries." Ivan Illich, "Health as one's own responsibility - no thank you!" Lecture, 1990, 4.

formality.”⁵⁸ Illich thus accentuates the difference between *doing* and *making* and between *receiving* and *producing* that Aristotle already emphasized.⁵⁹ He renews the Aristotelian hierarchy between the two forms of knowledge of *phronesis* and *techne* for the industrial age. The former cannot be transformed into universal formulae, as it always depends on the present situation, the here and now. Nonetheless, it is the excellence of making that must be subject to the *good*, to the appropriateness of excellence in doing in a social setting.

Illich thus refuses the new type of responsibility that the technological age seems to bring with it because it would be based on an increase in the power to plan, organise and continue the secular expansion of the *corruptio optima*. For Hans Jonas, on the contrary, responsibility follows first and foremost from a precautionary principle of action based on the speculative but realistic exercise of imagination linked to a probable fear.⁶⁰ Illich, on the other hand, infers from this about the radical powerlessness to which action is doomed. The identification of the responsibility that remains to humankind in the “age of systems” is the sober realisation of his inadequacy in facing up to today’s challenges. Doing has been profoundly altered and is now practically only accomplished through technologically mediated actions, whose embedded banality in everyday life makes their consequences unknown.⁶¹ Calls for the expansion of responsibility necessarily aim at perpetuating the technological escalation through an imperative of *better* integration of society into the global ontology of systems. To want and claim to be responsible is above all to assume an integration into that ontology.

58 Illich & Cayle, *Ivan Illich in Conversation*, 49.

59 Cf. *EN*, 1140b7–9. For Aristotle, doing and acting, production and action, are not involved, because an action *qua* production can be good or bad regardless of whether the product of that action is bad or good. It can turn out that in certain circumstances, it is excellent to make a certain product badly or not at all, just as it can be perverse to make a certain product excellently: *phronesis* should therefore not be considered analogous to *techne* because although it is guided by flourishing, it is not, in a precise sense, productive, since such process does not follow rules given beforehand. Someone is wise, *phronimos*, because they become good at finding answers to practical problems, in a particular field, for which there is no technical solution

60 Jonas, in this context, proposed a heuristic of fear leading to the precautionary principle which appears in many European legislations: *in dubio pro malo*. The rigorous methodological exercise regarding the forecasts of various futures will have to give way to the worst rather than the best prognosis.

61 Günther Anders had already presciently remarked the existence of a Promethean Gap since [...] we are unable to conceive what we can construct; to mentally reproduce what we can produce; to realize the reality which we can bring into being [...] As a matter of fact, our imagination is unable to grasp the effect of that which we are producing. Not only our reason has its (Kantian) limits, not only it is finite, but also our imagination and even more so our feeling. Günther Anders, “Commandments in the Atomic Age,” in *Philosophy and Technology. Readings in the philosophical problems of technology*, eds. Carl Mitcham and Robert Mackey (New York: The Free Press, [1961] 1983), 130.

In the age of systems, there is, therefore, no place for vice or virtue because *all character flaws are recycled not as personal flaws*, but above all as *systemic flaws*, of a still incipient technosphere. In other words, Illich does not admit that planetary responsibility can be a serious desideratum, at least at the individual level.⁶² It is intolerable that one's health should be now understood as the optimal integration into a socio-economic system, and that his responsibility should be configured as a duty towards a system that cannot be experienced: *giving in to these new industrial maxims is tantamount to destroying the original sense in which the subject can really be responsible, where he can suffer and live his health*. Regarding health, being responsible now implies "the smooth integration of my immune system into a socioeconomic world system"⁶³ or a "combination of the enjoyment of techniques, protection of the environment and adaptation to the consequences of techniques, all three of which are, inevitably, privileges."⁶⁴ Illich advocates the active renunciation of a health that is the effect of, but simultaneously secured by the same industrial system.⁶⁵ This refusal will at least allow a *reconnection with the limits and powers of the human condition, a rekindling, perhaps brief, of the art of dying and suffering that Illich considers to be essential practices*.⁶⁶

The overcoming of the Promethean anthropocentrism on which global responsibility is based can, however, be achieved *through the convivial fruition of a shared powerlessness*.⁶⁷ This is, after all, the way to celebrate the contingency of the world, its gratuitousness. To let the present be is to enjoy it and is, therefore, not to manipulate it, not to bend it to what it has to be so that expectations are fulfilled. The responsibility that is effectively within the reach of the agent is the renunciation of the expectations that technology opens up, with this renunciation offering a *topos* in which praxis may be cultivated:

62 "[...] it would be politically naive, after health and responsibility have been made technically impossible, to somehow resurrect them through inclusion into a personal project; some kind of resistance is demanded," Illich 1990, 5.

63 Illich & Cayley, *Ivan Illich in Conversation*, 49.

64 Illich & Cayley, *Ivan Illich in Conversation*, 49.

65 "I do not use the word to denote indifference. I must accept powerlessness, mourn that which is gone, renounce the irrecoverable. I must bear the powerlessness [...] Renunciation signifies and demands more than sorrow over the irrecoverable. It can free one from powerlessness, and has nothing to do with resignation, impotence or even repression". Illich, 1990, 4.

66 There is a fundamental difference between facing and living the path to death as a destination and living and facing that same path as what remains after a failure of all medical treatments: "[...] 'medical civilization' tries to abolish the need for an art of suffering" [it] produces a progressive flattening out of personal, virtuous performance." Ivan Illich, *Limits to Medicine* (New York: Marion Boyars, 2000), 138.

67 Jacques Ellul, in the same vein, has alluded how an ethics of nonpower implies the setting of limits about "what must be done and must not be done. The setting of limits always is constitutive of society and culture. No human group can exist as such if no limits are set [...] The setting of limits (which correspond to what formerly was "sacred") is the specific characteristic of freedom". Jacques Ellul, "The Ethics of Non-Power," in *Ethics in an Age of Pervasive Technology*, ed., Melvin Kranzberg (Boulder: Westview Press, 1980), 209.

I know only one way of transforming us, us meaning always those I can touch and come close to, and that's deep enjoyment of being here alive in this moment [...] a sense of being able to celebrate the present and celebrate it by using it as little as possible, because it's beautiful, not because it's useful for saving the world, could create the dinner table which symbolizes opposition to that macabre dance of ecology, the dinner table where aliveness is consciously celebrated as the opposite of life.⁶⁸

The idea of responsibility should thus not be abandoned but taken out of its global grandiose scope and refocused on the subject's actual capacities for agency as engaged in convivial and communal practices.⁶⁹ Otherwise, responsibility for "life," for the planet, is constituted as the promise of an increase of power around the subject.⁷⁰ It is not a question of not acknowledging anthropogenic climate change, but of pointing out that it is the result of human action, but not of human intentions.⁷¹ Moral responsibility must presuppose causal responsibility, as Aristotle would remind us, so that being willing to be responsible for the totality of life on Earth means not a softening of anthropocentrism, but its intensification. And hence Illich's point about the sacred character of a new profane religiosity that erects abstract idols that should henceforth command a planetary management.⁷²

If the grounding premises and scope of technological and economic progress are not revised, the progressive institutionalisation of specialists and professionals committed to a suggestive vigilance and to the maintenance of habits which would excel in an *environmental efficiency of daily life* will be justifiable. For Illich, the way in which a consensual relation is established between society and the environment is important: it is important not merely to live in obedience to acceptable levels of pollution and energy efficiency, for example, but *it matters for agents to perceive the good life and the common good that consecrates a relation with the environment through practices*. It matters for agents to know why it is

68 Illich & Cayley, *Ivan Illich in Conversation*, 282.

69 "I can be responsible only for those things about which I can do something". Illich & Cayley, *Ivan Illich in Conversation*, 282.

70 The ground of ethics is called self-limitation: "self-limitation stands in opposition to currently fashionable self-help, self-management or even responsibility for oneself, all three of which produce an interiorization of global systems into the self in the manner of a categorical imperative. Illich, "Health as one's own responsibility," 3.

71 As Santos points out, there are contingent things such as climate change that are subject to chance or completely outside human power and hence not justifiable objects of deliberation. Santos, *Introdução à Ética*, 187.

72 There is hence no contradiction whatsoever between Modernity and an ecological utopia. Technology is for ecomodernists a way of granting the latter through solar radiation management, carbon removal and other geoengineering approaches.

reasonable to act in a certain way. A judicious, situated, virtuous action is a call to responsibility proper to that forlorn common sense that refers to *mesotês*, “a median relative to us, to the concrete situation and the singular conditions of the agent himself for the practice of virtuous action.”⁷³

To explain the experience of cultural and natural degradation in terms of the scientific vocabulary of entropy is then to misrepresent it and to allow concepts foreign to the experience to individuate and mask indignation. For Illich, entropy is one of those concepts. It's not a word, but a technical term, and in it lies the risk of numbing and making comprehensible the terror that evil deserves. Illich tried to highlight the importance of safeguarding a rooted self-understanding of the body, senses and soul from scientific colonisation, under the danger of moral misrepresentation and uprooting. In the end, Illich finds it necessary to preserve the gap between human freedom and dignity and the laws that govern the cosmos. This is, in fact, the question of the Anthropocene: what choice and freedom do human beings have left to deal with the radical evil of an organised contamination and planetary destruction resulting from the exsomatization that we have learned to call technique. The critique of the expansion of responsibility to a concurrent planetary management it implies is then a questioning of one possible answer to such a question: the wrongful use of terms like entropy to describe the loss of vernacular cultures and a planetary responsibility are various phenomena of a single thread: the placement of the cosmos in human hands. Unlike the four horsemen of the apocalypse, such as pestilence, death, famine and violence, the new images of “life” and the scale of the industrial system on which they are based are empty, because they indicate a complexity that cannot be experienced and evils that cannot be relieved. They therefore provoke powerlessness and frustration by suggesting that the scale of what is affected is beyond the agent's effective power. The alternative to the new profane religiosity of global management is the acceptance of human nature, the celebration of the incalculable and the necessity of the pains, sufferings and mysteries that a conviviality with others convenes. Only with this renewal of *philia*, says Illich, does this loss of meaning become bearable and, perhaps, the beginning to something more.

The *corruptio optima* thus seems to acquire, in the present age, an apocalyptic tone. The use of this word is cautious because of the theological, fateful and vengeful tone it carries. The apocalyptic meaning of current times, in which the planet itself becomes the target of management and “life” a resource, has more to do with this revelation of the imposture that was the distortion of the Christian message. Evil, in Illich, is fulfilled through technological progress that operates an ontological reduction of what is good through values institutionalised in commodities. One could say that Illich acknowledged how the historical shift brought about by a *corruptio optima quae est pessima* resulted in a radical

73 Illich & Cayley, *Ivan Illich in Conversation*, 285; Santos, *Introdução à Ética*, 163.

reontologisation of the world and pre-modern subjectivities.⁷⁴ Practices and things, the concrete good, in its singularity, is not transmuted, but forgotten, becoming imperceptible: the historical attempt to disseminate the greatest good to the greatest number of people through merchandise, the attribute of ethical and economic utilitarianism,⁷⁵ caused the extinction of the original good. That is, for Illich, the mystery of evil.⁷⁶

74 Vincent Blok, “The Ontology of Creation: Towards a Philosophical Account of the Creation of World in Innovation Processes.” *Foundations of Science*, (2022): 3.

75 Consequentialism prescribes that everyone always acts so as to contribute to the maximization of a global value that brings into play the entire set of interests at stake, independently of the identity of the persons whose interests they are. Consequentialist rationality is, therefore, like economic rationality, an instrumental rationality — the means find their reason in the ends. Jean-Pierre Dupuy, Detour and Sacrifice: Ivan Illich and René Girard. *The challenges of Ivan Illich: a collective reflection*. Hoinacki, Lee & Mit-cham, Carl (eds.) (New York: State University of New York, 2002), 192.

76 Illich & Cayley, *The Rivers North of the Future*, 43.

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