PERPETUAL SORROW

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Introduction

This book is about suffering.

Not about the meaning of life, not about happiness, and not about morality in its conventional sense, but about the simplest yet hardest fact: living beings are capable of experiencing pain.

We know this not from theories, but from immediate experience. Pain can no more be refuted than the fact of its being experienced can be doubted. That is precisely why it becomes the starting point for any honest conversation about the world and our place in it.

This book is not a scientific study in the strict sense. Many of the questions it addresses—the nature of consciousness, the fundamental properties of reality, the limits of suffering—lie beyond the boundaries of contemporary science, or are illuminated by it only partially.

For that reason, a different approach is used here: philosophical analysis.

But philosophy in this book is understood not as a game of abstractions, but as an attempt to think consistently where direct empirical answers are unavailable to us. Where the data end, logic remains. It is logic that allows us to construct possible pictures of the world and test them for internal consistency.

The basic premise of this book is simple: we should regard the human being as part of nature, not as an exception to it.

This means that a human being is a complex physical system embedded in chains of cause and effect. Their thoughts, decisions, and behavior do not exist outside those chains. In this sense, a human being differs in no fundamental way from any other system—including a machine.

Yet this system possesses one property that makes it distinctive: the capacity for experience.

It is precisely the combination of determinism and the capacity to feel that stands at the center of everything that follows.

From this starting point, the book considers the hypothesis that suffering is not an accidental side effect, but a systemic property of complex sentient beings arising from their very structure and functions.

If that is so, then the problem of suffering extends beyond the bounds of individual human life and takes on a more general character—as a property of the reality in which such systems arise.

If, instead of a human being, we imagine any other system with the same properties—capable of processing information and experiencing its own states—the book's central conclusions should remain unchanged. If they do change, that means a hidden assumption has entered the argument.

The book then proceeds to examine, in turn:

- What consciousness is and how it relates to physical processes;
- What role suffering plays in biological and behavioral systems;
- How motivation is structured and why pleasure and pain are distributed unevenly;
- What becomes of the concepts of free will, responsibility, and morality within a deterministic picture of the world.

It is important to emphasize that the purpose of this book is not to impose a moral position, but to trace what conclusions follow from the consistent application of these premises.

Those conclusions may prove not only unfamiliar, but difficult to accept. Yet their force lies not in rhetoric, but in consistency.

To ignore them without examining the argument is to leave the problem of suffering unanswered.

Author: Causmar

Author's Notes

1. On the naturalistic fallacy and method. From the very first pages, I will likely be accused of committing the "naturalistic fallacy"—of trying to derive moral conclusions ("ought") from scientific facts ("is"). My answer is simple: I am not committing that fallacy; I reject the very dichotomy on which it is built. When a person is burning alive, their cry—"This must stop!"—is not a logical inference drawn from the fact of pain. Pain does not generate an "ought" through reasoning; it is originally experienced as "this must stop." That experience is part of its phenomenal structure, not an additional moral judgment.

1a. On morality and normativity. In this work, the term "morality" is used in a different sense than in traditional philosophy. I do not treat morality as a system of free prescriptions grounded in metaphysical free will or transcendent norms. By morality here I mean the structural dynamics of sentient systems—the way subjective experience, above all suffering and pleasure, shapes behavior, values, and social structures. What is at issue is not prescription from without, but the description of an internal regularity of sentient matter.

2. On honesty and the pseudonym. I am writing this book not for fame or recognition, but because I believe these ideas require the utmost honesty in discussion. A pseudonym is a way of securing that honesty. It allows the arguments to be separated from the author's personality, keeps attention focused on the substance, and avoids disputes reduced to questions of reputation or motive. My aim is for the ideas to speak for themselves.

3. On the structure of the text and footnotes. This text is dense with footnotes. They are not secondary comments or bibliographic references. The footnotes contain essential terminological definitions, methodological clarifications, and refinements to the logic of the argument. To skip them is to misunderstand the book's key concepts and potentially distort its central meaning.

4. On my position. My approach is not the construction of elaborate speculative systems, but naturalistic analysis. I proceed from the findings of neuroscience, evolutionary theory, and physics, trying to understand what conclusions about human existence follow logically from them. To a professional philosopher, my language may seem crude and my arguments excessively reductionist. But I am convinced that precisely such a hard naturalistic perspective is necessary today if we are to cut our way through the thicket of centuries-old illusions.

5. On the limits of the text and the nature of suffering. The very essence of suffering cannot be fully conveyed in words—the text remains only a pale shadow of real experience. That is why, in some places, the exposition may seem overly emotional. But this is not literary exaggeration; it is an attempt to reflect, at least in part, the weight of the questions under discussion.

6. On the character of the exposition. The text is intentionally compact: its purpose is to identify problems, not to exhaust them. If some topics strike you as especially important, I recommend turning to more detailed sources. At the end of the book, you will find a list of authors and works that can help you study these questions more deeply.

7. On the more difficult chapters. The chapters devoted to the philosophy of consciousness and the problem of free will (Chapters 2 and 3) require concentration and may prove difficult, especially for readers who have not previously encountered these subjects. Yet the conclusions we will reach there are fundamental to everything that follows. If you nevertheless decide to skip those chapters, the main theses on which the later argument rests are given below:

- **Consciousness is real.** Qualia—subjective experiences such as pain or the taste of coffee—exist and are an inseparable part of reality.
- **Qualia are epiphenomenal.** Our subjective experiences, though real, exert no causal influence on physical processes, including our behavior (this position will be refined later in the discussion of the relation between consciousness and physical processes).
- **Free will does not exist.** Our decisions are the result of causal chains that trace back to events over which we had no control (genes, environment, prior brain states).

Chapter 1: The Context of Existence

Modern scientific understanding leaves no room for doubt: the human being is an integral part of the material world. Our existence, consciousness, and behavior are wholly determined by the properties and organization of the same matter that makes up stars, oceans, and rock. Billions of years of trial and error through evolutionary selection have "taught" us to grieve, to laugh, and to ask questions about the world.

Yet this drive for knowledge is only a thin superstructure. At bottom, we remain the same half-naked apes: the architecture of our brain, which created civilization, has retained its primitive foundation. Like our ancestors, we fear going without food, being cast out of the pack, failing to find a mate, and our entire lives are governed by the simplest biological laws.

Evolutionarily younger regions of the brain, such as the prefrontal cortex, allow us to weigh arguments, anticipate consequences, and make rational decisions; yet these higher cognitive functions often prove powerless before impulses arising from ancient subcortical structures that were formed under conditions in which immediate reactions played the decisive role: fight, flight, the pursuit of resources, and reproduction. These mechanisms have been honed by millions of years of natural selection, and for that reason their signals take priority. Even when rational thought offers a more measured course of action, subcortical structures can override it with a powerful surge of emotion, forcing us to act impulsively.

Random mutations and genetic rearrangements in the course of brain evolution gave rise not only to conflicts, but also to its remarkable plasticity. That plasticity, originally serving adaptation to changing conditions, turned out to be precisely the property from which an instrument of cognition could arise. Thus, the blind play of evolutionary forces, pursuing only the aims of survival and reproduction, unwittingly created an apparatus capable of stepping beyond those aims and turning toward the study of the world. The discovery of the microworld and the vast reaches of cosmic space gave rise to countless questions.

Are We Alone in the Universe? The Fermi Paradox

Modern science indicates that life on Earth arose around 4 billion years ago, likely passing through a pre-RNA[1] world and then an RNA world. At that time, our planet was subjected to intense meteorite bombardment, its interior was incandescent, and volcanoes raged across its surface. Remarkably, RNA molecules, which are

[1] **RNA** (ribonucleic acid) is one of the key molecules of life. In the cell, it performs multiple functions: carrying genetic information, participating in protein synthesis, and regulating gene activity. Unlike DNA, RNA is usually single-stranded and more versatile, which is why scientists regard it as a possible basis for the earliest forms of life on Earth. **The pre-RNA world** and **the RNA world** are hypothetical stages in the evolution of life on Earth. The pre-RNA world posits the existence of simpler replicators (for example, PNA or inorganic templates) capable of storing information and catalyzing reactions before the emergence of RNA. The RNA world is the next stage, in which RNA became the first molecule capable of both self-replication and catalysis, thereby initiating Darwinian evolution and eventually leading to the emergence of DNA and proteins.

considered possible precursors of life, are extremely unstable—they are highly sensitive to fluctuations in temperature, acidity, and ionizing radiation. This means that under those harsh conditions, life may have emerged and disappeared countless times before finally gaining a foothold. Such a scenario makes the emergence of simple, single-celled life less an improbable accident than a natural result of chemical evolution on a suitable planet.

The next great transition—the emergence of the eukaryotic cell with its nucleus and mitochondria—took a considerable amount of time. Although this step itself was likely neither simple nor automatic, its consequences were evolutionarily enormous: the energetic efficiency of such an organization exceeded the capabilities of prokaryotes by orders of magnitude, opening the way to further increases in complexity. For that reason, the emergence of the eukaryotic cell can be regarded as one of the most consequential turning points in biological evolution.

This logic suggests that life should be widespread in the universe. In our galaxy alone, the Milky Way, data from the Kepler telescope suggest that there are about 300 million potentially habitable planets. Yet here we encounter the Fermi paradox—the contradiction between the high probability of extraterrestrial civilizations and the complete absence of any trace of them.

Over decades of research, many hypotheses have been proposed to explain this cosmic silence. Among them are the "Rare Earth" hypothesis, according to which the conditions required for the emergence of complex life are so rare that intelligent civilizations arise only exceptionally; the "methodological blindness" hypothesis, according to which we are looking in the wrong place or in the wrong way, while advanced civilizations use forms of communication unavailable to us, such as neutrino-based or quantum communication; and, finally, more exotic suggestions, such as the "zoo hypothesis," according to which Earth is a preserve or experiment being observed under a principle of non-interference.

Yet none of these theories provides an exhaustive answer. The Fermi paradox remains one of the most enigmatic problems in modern science, forcing us to ask: if life really is a regular outcome under suitable conditions, then where is everyone? This silence of the universe may be either evidence of our solitude or the most troubling warning we are not yet capable of deciphering.

Artificial Reality

There are grounds for thinking that a transition into artificially created realities may prove to be a regular stage in the development of a sufficiently advanced civilization. At first glance, such a prospect may seem little more than a futuristic projection of contemporary technological trends. On closer analysis, however, it appears less like an arbitrary fantasy than like a logical direction of further development.

First, the terminology should be clarified: what is meant here is not primitive "metaverses" or computer simulations in the modern sense, but fundamentally new forms of being—fully fledged artificial realities operating on physical principles that may differ radically from those known to us today.

A natural question arises: what could induce intelligent beings to leave natural reality voluntarily? The arguments in favor of such a transition are fundamental:

- The overcoming of biological limitations: fragile organic bodies, vulnerable to disease, aging, and death, would be replaced by stable carriers of consciousness no longer bound to biological matter.
- Liberation from physical laws—within artificial reality, any modification of spatiotemporal parameters, gravitational conditions, and other fundamental constants becomes possible.
- The attainment of genuine immortality—a digital environment makes it possible to copy, modify, and preserve consciousness indefinitely, fully eliminating the concept of death in its traditional sense.
- Unlimited possibilities for self-realization—each subject gains the ability to create and inhabit their own universes with individual laws of being.

These advantages make a transition into artificial realities a highly plausible stage in the development of any sufficiently advanced civilization.

Space Expansion

Humanity is often said to face a choice between space expansion and development on Earth, but on closer inspection this choice turns out to be illusory. The idea of interplanetary colonization, for all its romantic appeal, runs up against insurmountable biological, physical, and economic barriers.

We are the product of Earth's evolution, literally woven into the biosphere of this planet. Our anatomy, physiology, and even our circadian rhythms[2] have been shaped by Earth's gravity, atmosphere, and electromagnetic fields. An attempt to resettle on other planets would be equivalent to transplanting deep-sea fish into a desert: even slight changes in environmental parameters make our existence impossible. Martian gravity (38% of Earth's) would cause systemic disorders: degeneration of muscles and bones, vascular catastrophes, and dysfunction in cellular processes. Cosmic radiation without magnetospheric protection would lead to irreversible mutations. And attempts at reproduction under such conditions would amount to Russian roulette for embryonic development.

The problem of distance turns interstellar travel into science fiction. Even a journey to Proxima Centauri (4.24 light-years away), under the most optimistic projections, would take millennia. The nearest targets in the Solar System—the Moon and Mars—

[2] **Circadian rhythms** are endogenous (internal) biological rhythms with a period of about 24 hours that regulate sleep-wake cycles, metabolism, hormonal activity, and other physiological processes in living organisms.

are lifeless deserts where the creation of autonomous colonies would require quadrillions in investment.

Yet even if one assumes some technological miracle capable of solving these problems, humanity would still run up against sociobiological barriers:

- Inevitable separation. Colonists isolated in an alien environment with different gravity, radiation levels, and social structures could, within just a few generations, begin to form an increasingly distinct branch of humanity. Deliberate genetic modification for adaptation would only accelerate the process. This creates the possibility of irreconcilable conflict, calling into question the very idea of a unified humanity.
- The insoluble problem of contamination. The paradox of interplanetary missions is that planetary protection protocols either become hopelessly obsolete after the very first contact or make any colonization impossible. The risk of interplanetary contamination—whether through the invasion of terrestrial microorganisms capable of destroying fragile potential exobiosystems, or through the introduction to Earth of unpredictable alien pathogens—would remain fatal. We would either remain forever sealed in sterile suits, or risk triggering a biological catastrophe on a planetary scale.

By the time humanity comes to understand the effectively nonexistent prospects of conquering space, views on the causes of the Fermi paradox may shift. Perhaps other intelligent beings, at a certain stage of development, come to understand that living on random—or someone else's created—wild planets wholly unsuited to intelligent activity is an extraordinary folly. To exist in imperfect and vulnerable bodies, to play by the rules of a universe imposed on us at birth, is not an especially good idea either—nor, for that matter, is developing one's limited planet. The creation of artificial realities into which consciousness could be transferred seems a logical solution to earthly limitations. Yet the feasibility of this scenario runs up against the fundamental mystery of the nature of consciousness—a phenomenon that still eludes scientific understanding.

Chapter 2: Consciousness

The basic level of consciousness[3] *is the state on which all experiences "rest." This level is not reducible to wakefulness, since it is also possible in sleep. It is accompanied by a sense of the body as "here and now." It is this level that creates the "field" within which any qualia can arise.*

Phenomenal consciousness (qualia) *is the subjective, inner experience of experience itself. Put simply, it is what it is like to be oneself: to feel pain as pain, to see blue precisely as blue, to taste chocolate, or to smell a rose. It is not merely the brain's processing of information, but personal experience. The basic level of consciousness may not always guarantee a phenomenal aspect, but it is usually accompanied by one. Phenomena such as blindsight*[4]*, subliminal perception*[5]*, and hypothetical "unconscious qualia*[6]*" are not treated in this context as genuine qualia, since they amount to unconscious neural activity without explicit subjective experience. In this book, whenever consciousness is discussed without further qualification, what is meant is phenomenal consciousness (qualia).*

Our brain is an extraordinarily complex and dynamic structure. Neurons constantly form new connections and break old ones; synapses are strengthened or weakened depending on experience. This continuous reorganization is not a malfunction, but the very essence of how the brain works. Yesterday's thoughts are no longer the same as today's, because the very substrate that gives rise to them has physically changed. But if the brain is merely a "cluster of atoms," the question arises: why does it feel itself from within? The subjective aspect remains an unresolved mystery despite the many hypotheses that have been proposed. Biology looks for an answer in patterns of neural impulses, in complex molecular cascades, in evolutionary adaptations—but how, exactly, does subjective experience arise from objective processes?

Modern science possesses a vast body of evidence demonstrating the direct dependence of mental processes on the brain's biochemical and neurophysiological mechanisms. The effects of psychoactive substances, which can radically alter mental states, provide compelling confirmation of this connection. Nevertheless, despite all scientific evidence, theories that deny this relationship continue to exist. Such views

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[3] It should be noted that the concept of a "**basic level of consciousness**" as a universal background mode of experience is controversial in contemporary consciousness science. A number of researchers question whether it exists as an autonomous phenomenon, suggesting that the term may instead describe a cluster of different processes. In the present work, the concept is used as a heuristic model that helps structure the discussion of the relationship between different aspects of subjective experience.

[4] **Blindsight** is a neuropsychological phenomenon in which a patient with damage to the visual cortex (and, consequently, subjective blindness) demonstrates the ability to respond unconsciously to visual stimuli that they do not "see" in the ordinary sense. For example, such a person may successfully guess the location or movement of an object while denying that they see anything at all.

[5] **Subliminal perception** is the brain's processing of sensory information that remains below the threshold of conscious awareness. Stimuli (a sound, image, or word) are presented so quickly or so weakly that the person is unaware of having seen or heard them, yet they may still influence emotions, behavior, decisions, and later reactions.

[6] **Unconscious qualia** are a hypothetical concept denoting subjective sensory experiences (such as pain, smell, color, and so forth) that, for one reason or another, do not reach the level of conscious awareness, but may nevertheless influence the organism's behavior and physiological responses. The concept lies at the intersection of philosophy of mind and neuroscience, and its existence remains a matter of debate.

are especially widespread in pseudoscientific circles and often appeal to religious dogma. When science encounters aspects of consciousness that are not yet fully understood, some take this gap as "proof" of its immaterial nature—for example, by claiming that consciousness cannot be reduced to neurons and therefore must have a spiritual nature. This is a classic example of the "God of the gaps" fallacy: the substitution of mystical explanations for an as yet unexplained phenomenon. In discussions of consciousness, this error most often takes the following form: "Science cannot explain consciousness; therefore, it exists through the intervention of God."

Once a gap in knowledge ceases to be recognized as something not yet understood, it begins to be perceived as something already known, while mythological explanations are accepted as reliable. Moreover, the very conviction that there is already a "ready-made answer" creates a false sense that the problem has been solved, thereby blocking further inquiry. The result is an illusion of understanding where in fact there is only ignorance.

Unfortunately, some philosophers resort to similar moves. Certain philosophical approaches deny consciousness as an independent phenomenon, reducing it to other processes or declaring it an illusion, thereby committing a mirror-image error—an "anti-gaps" fallacy: they claim that no gap in knowledge exists and that the problem itself is false.

Eliminativists argue that consciousness in the ordinary sense is an outdated concept, comparable to the old idea of the "ether." They deny the reality of subjective experience (qualia), aiming to remove the concept of consciousness from scientific discourse.

Illusionists maintain that consciousness exists as a useful illusion, and that subjective experience is not a fundamental reality but rather a kind of "narrative" the brain constructs in order to simplify information processing.

These approaches play an important role in the philosophy of consciousness by serving as a critique of naïve dualism—the view of consciousness as some kind of "spiritual substance" existing separately from the brain. Yet their radical versions fall into the opposite extreme: instead of explaining consciousness itself, they deny its existence or declare it a "deception," excluding from the picture of the world the very thing through which that picture appears. It is like a sighted person calling himself blind.

But even within the illusionist framework, the central mystery does not disappear. If consciousness is a useful user interface that the brain creates for itself, then what is the physical nature of this "experience of the interface"?

In this book, we will avoid such extremes and treat consciousness as a real phenomenon, while acknowledging its depth and complexity. Admittedly, proving

the reality of phenomenal consciousness is difficult, since it cannot be observed from the outside. Yet there are strong arguments in favor of its existence:

- Consciousness is given to us directly—through the very act of experience.
- Even if the entire external world is an illusion (as in solipsism[7] or the "brain in a vat" hypothesis[8]), the experience of that illusion itself confirms the presence of consciousness.
- The denial of consciousness is itself an act of consciousness, much like trying to prove the nonexistence of dreams from within a dream.
- Our ability to distinguish experiences (for example, the perception of the color red and the taste of an apple) testifies to the reality of phenomenological differences.
- Consciousness is intentional by its very nature—it is always directed toward an object (a thought, a sensation, an image)[9].
- Science cannot "abolish" consciousness, because scientific data themselves are apprehended through it[10].
- The very fact that we attribute consciousness to other beings, and on that basis recognize their right not to suffer, indicates that we take consciousness to be a real and profoundly significant ontological category[11], not merely a convenient fiction.
- We can experimentally distinguish brain activity associated with unconscious information processing from activity associated with conscious experience, which indicates that consciousness is not a mirage, but a special mode of brain functioning.

A philosophy of consciousness that recognizes it as a real phenomenon focuses on several key problems, which can provisionally be divided into:

- Ontological (what is consciousness?).

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[7] **Solipsism** is the philosophical position according to which only the individual's own consciousness exists, while all external reality—including other people, physical objects, and the laws of nature—does not exist independently, but is instead a product or content of that consciousness.

[8] **The brain-in-a-vat hypothesis** is a modern thought experiment that develops the Cartesian evil-demon argument and themes associated with solipsism. According to it, your brain (or consciousness) may not be located in a body at all, but may instead exist separately—for example, in a vat of nutrient fluid—while its neural activity is artificially stimulated by a computer generating a complete illusion of your reality, including the sense of having a body, other people, and physical laws.

[9] A possible exception is the basic level of consciousness—pure consciousness without content. Its intentionality is not directed outward, but toward the very possibility of perception itself.

[10] This claim is based on the phenomenological argument that all knowledge, including scientific knowledge, exists only as content within the experience of a conscious being: even the most objective fact (for example, an instrument reading) must be perceived, understood, and interpreted by a researcher. However, the hypothesis of philosophical zombies calls this thesis into question, showing that science could, in principle, exist as a purely functional process of information processing and the generation of behavioral responses, without any subjective experience whatsoever. Zombie scientists, despite lacking consciousness, could formally reproduce all scientific theories and discoveries, including neurobiology, without ever encountering the phenomenology they study. This highlights the fact that consciousness, while necessary for our knowledge, may not be necessary for the abstract possibility of scientific activity as such.

[11] **Ontology** is the branch of philosophy that studies the fundamental principles of being, existence, and reality. It addresses questions such as: "What exists at the foundation of the world?" and "What is the nature of that which exists?"

- Epistemological (how do we know it? Can introspection[12] be trusted? How can consciousness in others be verified?).

The main ontological positions include:

- Monistic (reduction to a single underlying basis).
- Dualistic (consciousness and matter as separate substances).
- Alternative (panpsychism, functionalism, and others).

In contemporary philosophy, it is common to divide the problems of consciousness into "easy" and "hard" ones. The "easy" problems are open to scientific investigation, for example:

- The neural correlates of color perception;
- The mechanisms of memory formation;
- The biochemistry of emotions.

For all their complexity, these questions are studied by traditional methods (fMRI[13], neural network modeling, and so on). The "hard" problem, by contrast, is formulated in a paradoxically simple way: why are neurophysiological processes accompanied by subjective experience? Why, when certain neurons are activated, do we not merely respond to a stimulus, but actually feel pain, see color, or experience emotion? This problem calls into question the very nature of the connection between the brain and mental phenomena, reminding us that even complete knowledge of neurons does not explain the emergence of subjective reality.

The Easy Problems of Consciousness

Modern neuroscience has made significant progress in the study of the "easy" problems of consciousness—those aspects of mental life that lend themselves to functional explanation. Research into the neural correlates of consciousness has made it possible to identify key brain structures and processes involved in the formation of conscious experience. Methods such as fMRI and iEEG (invasive electroencephalography) have helped reveal "hot zones" and identify specific markers of consciousness.

Yet even within the framework of the "easy" problems, unresolved questions remain. Why, for example, are some neural processes accompanied by subjective experience while others are not? Why, in blindsight, does the brain process a stimulus without our becoming aware of it? These puzzles show that simply identifying neural correlates is not enough—we must also understand how, exactly, they give rise to experience.

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[12] **Introspection** is the method of self-observation and analysis of one's own mental processes (thoughts, emotions, sensations) in real time.

[13] **fMRI** stands for functional magnetic resonance imaging.

Here theories such as Integrated Information Theory (IIT) come into play. IIT attempts to describe consciousness mathematically in terms of the degree of causal interconnectedness within a system. According to IIT, consciousness is not merely a product of the brain's complexity, but a fundamental property of any highly integrated system, whether biological or artificial. Other approaches, such as Global Workspace Theory and predictive coding, focus on functional aspects: how the brain selects information for awareness, and how predictions shape perception.

The study of the "easy" problems of consciousness often suffers from anthropocentric bias. These cognitive distortions do not merely limit scientific progress; they also become a source of unnecessary suffering for other living beings. The problem manifests itself at every level of research—from the formulation of questions and the choice of methodology to the interpretation of results and the drawing of conclusions. A typical example is the automatic attribution of complex cognitive capacities only to humans or to our closest evolutionary relatives, while analogous manifestations in other species are explained away as "primitive instincts." Such an approach leads to a systematic underestimation of the capacities of nervous systems that have developed along different evolutionary trajectories. We see this, for example, in early work in comparative psychology, where the complex behavior of cephalopods or corvids long failed to receive adequate explanation precisely because of researchers' anthropocentric assumptions.

To overcome these limitations, a consciously multispecies approach is needed—one that treats each nervous system as a unique product of evolution. Such an approach not only broadens our understanding of the diversity of cognitive forms, but also has an important ethical dimension. Recognizing the complexity of nervous organization across different species changes our attitude toward them, reducing unwarranted suffering. For science, this opens new perspectives: by studying alternative evolutionary pathways of nervous systems, we gain a better understanding of their general principles of operation, which in the end helps bring us closer to solving the "hard" problem of consciousness as well.

What Unites Us: The Emergence of the Nervous System

Fundamental research in cell biology reveals the astonishing complexity of chemical communication even in the most primitive forms of life—bacteria—showing that key elements of social behavior and adaptive responses to the environment arose at the dawn of evolution. Even prokaryotes possess highly organized molecular systems such as quorum sensing, which allows bacterial populations to function as a single organism: by releasing and detecting autoinducers—low-molecular-weight signaling compounds—cells synchronize gene expression[14], collectively triggering

[14] **Gene expression** is the process by which a gene (a segment of DNA carrying information about the structure of a protein or a functional RNA molecule) is "turned on" and begins to function. As a result, the cell produces specific molecules (most often proteins) that determine its properties and functions.

bioluminescence, biofilm formation[15], or the secretion of virulence factors[16] once a critical density is reached. In essence, this is a primitive analogue of collective decision-making.

No less sophisticated is the mechanism of chemotaxis, a kind of "bacterial navigation." The rotation of flagella is regulated by a complex cascade of receptors capable of analyzing the dynamics of chemical gradients, comparing the current and previous concentrations of substances in the environment, and accordingly changing the direction of movement. This points to rudimentary forms of spatial memory and goal-directed behavior. These ancient systems, which arose more than three billion years ago, effectively constitute protocognitive functions: elementary information processing, the simplest stimulus-response logic, and the first beginnings of social coordination.

In the earliest multicellular organisms, such as sponges and placozoans, more complex forms of cellular coordination can be observed. Electrophysiological experiments have revealed in them slow action potentials capable of propagating through gap junctions between cells, as well as primitive neurotransmitter systems[17] (glutamate[18], GABA[19]) and rudimentary elements of synaptic transmission[20] (involving calcium and potassium ions). These findings are fundamentally important because they show that the molecular and biophysical foundations of nervous activity began to take shape long before the emergence of specialized neurons and true synapses.

Of particular interest is the phenomenon of cellular sensitization in simple organisms—an elementary form of learning in which repeated exposure leads to an intensified cellular response. This can be regarded as a prototype of memory and the simplest form of adaptive behavior. The emergence of these protosubjective properties was a regular consequence of fundamental biological needs: the need to integrate discrete sensory information into a unified cellular response, to adapt the organism's behavior flexibly to changing environmental conditions, and to coordinate the activity of individual cellular ensembles into a complex, coherent physiological response.

Contemporary neurophilosophical concepts, especially Integrated Information Theory, interpret these preneural forms of cellular communication as a crucial transitional stage in the emergence of consciousness and complex cognitive functions. In this context, the subjective experience of higher organisms appears not

[15] **A biofilm** is an organized community of bacterial cells embedded in a self-produced extracellular polymeric substance.
[16] **The secretion of virulence factors** is the directed release by prokaryotes of specific molecules (proteins, enzymes, toxins) into the external environment or directly into host cells in order to overcome defensive barriers.
[17] **Neurotransmitters** are chemical substances that transmit signals between nerve cells (neurons), or from neurons to other cells (for example, muscle cells).
[18] **Glutamate** is the principal excitatory neurotransmitter in the central nervous system of mammals.
[19] **GABA** stands for gamma-aminobutyric acid. It is the principal inhibitory neurotransmitter of the mammalian central nervous system and the functional antagonist of glutamate.
[20] **Synaptic transmission** is the process by which a nerve impulse (signal) is transmitted from one neuron to another neuron or target cell (for example, a muscle or gland cell) through a specialized junction called a synapse.

as a sudden evolutionary leap, but as a regular result of the gradual refinement and increasing complexity of fundamental mechanisms of intercellular interaction over millions of years. The roots of these mechanisms extend back into the depths of the Precambrian era, when the very possibility of biological subjectivity was only beginning to take shape.

The emergence of neurons was the result of the specialization of ordinary eukaryotic cells. In effect, nature did not invent neurons "from scratch," but modified systems that had already been functioning successfully in ordinary cells for billions of years. The key components of the neuron—ion channels[21], the vesicular transport system[22], and mechanisms of cell adhesion[23]—all have their analogues and prototypes in most eukaryotic cells. Even such a specialized structure as the synapse arose on the basis of universal cellular mechanisms of exocytosis[24] and intercellular communication. In essence, the entire evolution of the nervous system is the story of ever more efficient use of a basic cellular "toolkit."

If one traces the history of neurotransmitters, it becomes clear that many of them originally performed fundamental metabolic functions and mediated intercellular interactions. These ancient molecules, which emerged long before the nervous system, were gradually repurposed by evolution for new functions of interneuronal communication. Such an evolutionary scenario makes it possible to suppose that consciousness may have arisen as a property of the increasingly complex integration of these originally primitive signaling systems. When we feel pain or take pleasure in music, we may, perhaps, be sensing echoes of those ancient physicochemical processes that billions of years ago regulated the simplest responses of unicellular organisms to their environment.

Although neurons and ordinary cells share a common origin, consciousness probably requires more than mere signal exchange; it requires a multilayered integration of information that, in biological systems, is achieved only through specialized neuronal ensembles. These neural networks are capable of global synchronization of activity, something vividly manifested in thalamo-cortical interactions that provide the basis for unified perception. Another important aspect is the temporal dynamics of neural processes: conscious states are associated with specific patterns of brain activity. But how, exactly, does brain activity—any brain activity, from the most ancient to our own—become personal experience? This question brings us to the very heart of the mystery of consciousness.

The Hard Problem of Consciousness

[21] **Ion channels** are specialized protein structures that span cell membranes. They form pores that selectively allow ions (such as Na^+, K^+, Ca^{2+}, and Cl^-) to enter or leave the cell.
[22] **Vesicles** are microscopic membrane-bound "bubbles" within the cell that serve functions of storage, transport, and secretion of various substances.
[23] **Cell adhesion** is the process by which cells bind to one another or to the extracellular matrix through specialized molecular structures.
[24] **Exocytosis** is the process by which a cell releases substances to the outside, packaged in membrane-bound vesicles.

1. The Starting Point: The Irrefutability of Reality

Any inquiry into consciousness must begin with the acknowledgment of an obvious fact that is not open to doubt: consciousness exists. Pain is real. The subjective experience of what it is like to be is not an illusion, but a primary given—the only reality whose truth we cannot doubt.

2. Method: Naturalism and Causal Closure

If consciousness is real, how does it fit into the world described by physics? We adopt the naturalistic paradigm: the world is one and governed by physical laws. A key consequence of this paradigm is the principle of the causal closure of the physical world: every physical event has a sufficient physical cause. In the chain of causes and effects that leads, for example, to the withdrawal of a hand from fire, there is no room for immaterial "intervention."

If we assume that qualia possess causal power—for example, that the experience of pain influences subsequent behavior—then the following model emerges: activation of nociceptive[25] neurons → emergence of a pain quale → modification of neural networks (synaptic plasticity, behavioral change). Yet this scheme runs into a fundamental problem. According to the principle of causal closure, every physical event, including a change in behavior, must have a sufficient physical cause. If qualia are fully determined by prior neural activity, then they cannot make any additional causal contribution without violating closure. This creates a logical paradox, since qualia turn out to be both the effect and the cause of neural processes.

Thus, the principle of causal closure inevitably leads us to epiphenomenalism[26]. If consciousness is real but cannot be an independent physical cause, then only one conclusion is logically possible: consciousness is an epiphenomenon—a real but causally inert byproduct of the brain's physical processes. Pain does not "make" the hand withdraw; it merely accompanies the physical process in the brain that is the true cause of that action.

3. The Evolutionary Puzzle of Classical Epiphenomenalism

[25] **The nociceptive system** is the sensory system responsible for detecting, transmitting, and processing signals about potentially damaging stimuli, which are experienced as pain.

[26] The principle of causal closure is compatible with at least two models: (1) epiphenomenalism, in which consciousness is a causally inert product of physical processes; and (2) symmetric dual-aspect monism, in which the physical and the phenomenal are equally fundamental aspects of one and the same reality. We reject the second model because it erases the causal asymmetry that is critical for our analysis: evolution selects physical algorithms, not holistic "physical-phenomenal" events. Thus symmetric dual-aspect monism either adds no explanatory value or else runs into difficulties in reconciling itself with physics. Epiphenomenalism, by contrast, directly preserves this asymmetry without introducing unnecessary assumptions. Here, moreover, epiphenomenalism is understood as a thesis about the causal role of qualia and does not exclude different ontological interpretations (including asymmetric forms of dual-aspect monism), provided that they preserve the causal closure of the physical. If phenomenal properties do not affect behavior, they do not participate in selection and explain nothing—in that case such a model is, in essence, no different from epiphenomenalism. If, on the other hand, one supposes that they do affect behavior, the question immediately arises how this is possible without violating the causal closure of the physical world.

Yet classical epiphenomenalism encounters what appears to be an insurmountable obstacle. If consciousness is merely useless "noise" accompanying neural activity, then its existence becomes an evolutionary puzzle. Why does this epiphenomenon display such remarkable "fine-tuning" to the demands of survival? Why is the experience of pain agonizing and intrusive, perfectly motivating the avoidance of threat, while pleasure from food is pleasant, stimulating its pursuit? If the connection between a useful physical algorithm and a useless experience is accidental, then such an ideal correlation looks like an improbable, almost miraculous coincidence.

Attempts to save the theory lead to dead ends: either one must posit an extraordinary coincidence, or one slips into a hidden dualism in which experience is still granted a causal role. The strength of epiphenomenalism—its logical rigor—turns into its weakness: it cannot explain the most striking fact about consciousness[27].

4. From Chance to Law: The Direction of Inquiry

A way out of this deadlock requires a radical rethinking. What if the connection between brain and consciousness is not a historical accident, but the manifestation of a fundamental law of nature—as fundamental as the laws of gravity or thermodynamics?

To justify the possibility of such a law, let us ask where consciousness should be sought in the physical world. We can construct the following logical chain, grounded in the inevitability of evolution under the second law of thermodynamics:

- Complex chemistry is a marker of a highly organized, stable structure.
- Such a structure can exist only if it sustains energy-intensive homeostasis and actively resists entropy[28].
- In a world of scarce resources, maintaining such complexity is possible only through a process analogous to natural selection—the selection of the most energy-efficient configurations and algorithms.
- This evolutionary process gives rise to increasingly complex physical patterns ({F}) optimized for survival (for example, an ultrafast damage-avoidance algorithm, {F_pain}).
- If there exists a fundamental law linking physics and phenomenology, then the presence of such complex, selected patterns {F} necessarily entails the presence of corresponding nontrivial qualia (Ψ).

Consciousness, then, is not a ghost. It is a possible—and under certain conditions inevitable—structural epiphenomenon of increasing complexity. The mystery lies not in what it is "for," but in the specific rule by which a physical configuration {F} is

[27] Yet for all the apparent "fine-tuning" of the fit between experienced qualia and the functional system, that fit may be illusory. Any stable unpleasant sensation associated with threat could, in principle, be experienced otherwise: pain as an intense bitterness, an unpleasant smell as a sharp sound, an itch as a mild pressure—while still producing the same organismic responses. It seems to us that the correlation between subjective experience and nociceptive signals is "ideal," but we have no external comparison class: we simply cannot know what that relation might have looked like otherwise.
[28] **Entropy** is a fundamental physical quantity—a measure of disorder, chaos, or uncertainty in a system.

translated into a phenomenological state Ψ. The deadlock of classical epiphenomenalism points not to its falsity, but to the need to identify such a law.

5. A Conceptual Analogy

The history of science offers examples in which a deadlocked problem was resolved not by new data, but by a shift in the conceptual framework itself. The clearest example is Albert Einstein's revolution in our understanding of gravity.

Before Einstein: Gravity was understood as a mysterious force of attraction acting at a distance between two masses. Mass and force were conceived as separate entities.

After Einstein: General relativity replaced this model with the field equation:

$G_{\mu\nu} = 8\pi G/c^4 \, T_{\mu\nu}$

where $T_{\mu\nu}$ is the stress-energy tensor[29] (matter), and $G_{\mu\nu}$ is the Einstein tensor (the geometry of spacetime).

Einstein showed that gravity is a manifestation of the geometry of spacetime, which is inseparably and necessarily linked to the distribution of matter-energy.

The key conclusion for our problem is this: a strict causal analysis of this equation reveals an intriguing aspect. The entire causal "content" of the world is contained in the distribution and dynamics of matter-energy (T). Geometry (G) can be derived from T by means of this equation. In this sense, G is an epiphenomenon of T—it adds no new, independent causality. And yet G is not an accidental side effect, but a fundamental, necessary, and enormously informative aspect of matter itself[30]. By knowing the geometry (the curvature of spacetime), we can predict the motion of bodies (geodesics) with perfect precision, because that geometry is itself a perfect reflection of the causal structure already contained in matter.

6. The Ψ-F Law: Consciousness as the Inner Geometry of the Brain

By analogy, we propose the following conceptual step: what if consciousness stands to neural processes as the geometry of spacetime stands to matter[31]?

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[29] **A tensor** is a mathematical tool used to describe complex physical quantities that change when the frame of reference changes (for example, under rotation).

[30] In a strict causal analysis of general relativity, the geometry of spacetime, described by the Einstein tensor G, is a necessary descriptive epiphenomenon of the distribution of mass-energy T. All the dynamics are contained in T; G is a perfect representation of the causal structure already encoded in T. This does not contradict quantum-field approaches (such as graviton-based models of gravity), in which gravity is described as an exchange of virtual particles. Even in such a model, the very act of "exchange" and the curvature of spacetime remain epiphenomenal, informative ways of describing an interaction rooted in fundamental fields and their quanta.

[31] This comparison is purely structural and methodological in character and implies no analogy whatsoever in scale, significance, or intellectual level between the hypothesis proposed here and Einstein's theory.

This leads us to postulate a fundamental law of correspondence, which we will call the Ψ-F law:

Ψ = Φ({F_i})

Where:

{F_i} is the full set of physical parameters of a system (for example, the brain) at a given moment: the architecture of its connections, the spatiotemporal dynamics of excitation, its energetic profile, and the degree of informational integration. This is the objective content of the process, analogous to the tensor T (matter-energy).

Ψ is the phenomenological state, the subjective experience (qualia). It is the inner form of existence of a given physical state—the way it is given from within to the system itself. This is analogous to the tensor G (geometry).

Φ is the correspondence function, a fundamental law of nature that unambiguously maps each complex physical pattern {F} onto a specific phenomenological state Ψ.

This model may be called asymmetric dual-aspect monism:

- Monism: There is one reality.
- Dual-aspectness: This reality has two irreducible modes of givenness: the physical ({F}) and the phenomenological (Ψ).
- Asymmetry: Causal and evolutionary priority belongs to the physical aspect. Ψ is an epiphenomenon in the causal sense, but a fundamental property in the ontological sense.

It should be emphasized that the Ψ-F law is not a ready-made solution, but a framework for posing the problem. We do not know the form of the function Φ; its discovery would constitute a genuine scientific revolution. At this stage, the law serves only to help us think coherently and non-contradictorily about the relation between the physical and the phenomenal.

7. A New Formulation of the "Evolutionary Puzzle"

The Ψ-F law radically changes the very formulation of the problem of the "fine-tuning" of consciousness. The question is no longer, "Why are useless qualia needed?" but rather:

Why do efficient physical survival algorithms ({F}), selected by evolution, generate through the universal law Φ precisely these qualia (Ψ) rather than others?

The answer lies in the principle of causal proportionality, which must be built into any coherent law Φ. This principle states: the intensity of the phenomenological

consequence (Ψ) must be proportionate to the intensity (in energetic and causal-complexity terms) of its physical cause ({F}).

7.1. From Correspondence to Content: The Hypothesis of an Energetic Basis of Valence

The Ψ-F law postulates a fundamental correspondence: for every complex physical pattern {F}, there exists a strictly determinate phenomenological state Ψ. Complete knowledge of the function Φ would mean complete knowledge of Ψ—including its qualitative character, intensity, and valence. Yet without knowing the precise form of Φ, we cannot predict these qualities for an arbitrary and unknown pattern {F}. We can only analyze known {F}–Ψ pairs retrospectively and formulate hypotheses about which physical parameters within {F} may be critically important in shaping particular aspects of experience.

One such plausible hypothesis is the connection between the valence of experience and the system's overall energetic state. Observing known forms of consciousness, one may suppose that in evolved biological systems the law Φ is structured in such a way that the sign of valence (positive or negative) is determined to a considerable extent[32] by the dynamics of total energy expenditure[33].

Let us consider two poles that illustrate this logic:

- Pain (Ψ_pain): This arises with the pattern {F_pain}—an emergency, highly energy-intensive mobilization of the system in response to a threat to its integrity. Such a pattern creates the overall energetic tension required to eliminate the threat. According to our hypothesis, the phenomenological projection of this forced creation of tension is precisely the painful, negative experience. It signals a systemic crisis requiring urgent expenditure.
- Orgasm (Ψ_orgasm): Its physical correlate, {F_orgasm}, is not a simple spike in expenditure, but a pattern of large-scale, coordinated discharge of long-standing systemic tension (sexual drive). At the moment of orgasm, what occurs is not a spike in total expenditure, but its catastrophic reduction after a period of accumulation. Phenomenologically, this is experienced as intense relief, release, and resolution—that is, as a positive state which, according to our hypothesis, is the projection of the removal of overall systemic tension rather than its creation.

[32] The observed correlation suggests that **one of the key** parameters within {F} affecting valence in Φ may be the dynamics of total energy expenditure.

[33] It is important to emphasize that, when we speak of "total energy expenditure" or an "energetic state," we do not mean any hidden purpose or evaluation "from the point of view of the system." We are speaking about a purely physical parameter—the degree to which the system is displaced from equilibrium, the total amount of work it must perform to maintain its integrity. In this sense, high "costs" are simply a measure of the intensity of internal processes associated with resisting entropic pressure. The stronger and more prolonged this deviation (the greater the "thermal motion" and dissipation within the system), the more negative, according to our hypothesis, the corresponding experience becomes. Conversely, a sharp reduction of this deviation (a return to equilibrium, the release of tension) is projected as a positive state. Thus, in our model, valence is not a semantic evaluation, but the phenomenological reflection of the system's purely physical dynamics in its struggle for stability.

But what about pure, unmotivated joy—at an unexpected gift, a beautiful sunset, or a stroke of luck? In such cases, there is no prior tension to be discharged.

We propose to understand such states as the phenomenological projection of a sudden increase in the system's overall energy efficiency.

The brain is a prediction machine, constantly expending energy to construct models of the world and eliminate discrepancies between prediction and reality (cognitive dissonance). A sudden positive stimulus—social affirmation, aesthetic harmony—is an event that:

- corresponds with exceptional precision to deep, evolutionarily advantageous patterns;
- instantly resolves a multitude of micro-predictions, reducing uncertainty and the energetic cost of sustaining it.

At such a moment, the pattern {F_joy} is not a spike in expenditure, but a spike in optimization. It is a mass reconfiguration of neural ensembles toward greater order, coherence, and predictability. According to the Ψ-F law, the phenomenological projection of such a pattern of super-efficiency is a positive state (Ψ_joy). It is an inner signal of a sudden coincidence with an optimal, energy-saving configuration.

Valence, then, is not an arbitrary label in our model. It is derivable from the logic of the system's overall energetic state, as reflected by the law Φ:

- Negative valence (suffering) = the projection of the forced creation of overall tension in order to eliminate a threat.
- Positive valence (pleasure, joy) = the projection of the release of existing tension or the attainment of a state of increased efficiency and predictability.

It is important to note that this account of positive valence in terms of "optimization" and "reduced expenditure" is a plausible but speculative interpretation. Its purpose is to show that within the framework of the Ψ-F law, one can reason coherently about valence without attributing causal power to consciousness. The final explanation, however, belongs to future inquiry into the form of the function Φ.

8. Confirmations and Implications of the Model

The Ψ-F law is not merely a speculative construct. It finds direct confirmation in well-known neurobiological phenomena and makes it possible to draw clear boundaries between this model and other philosophical positions.

8.1. The Innateness of Qualia: Ready-Made Experience, Not an Acquired Instrument

Newborn mammals display the full range of reactions associated with pain or aversion from the very first day of life, long before any learning has taken place. Neuroimaging shows activation in the same brain regions as in adults. This is a decisive argument against theories that assign consciousness the acquired, causally useful role of a "motivator." If pain were something that teaches, it would emerge gradually. But it is given immediately—just as the Ψ-F law would require. A ready-made physical circuit ({F_pain}), selected by evolution, generates from the moment of its first activation, through the law Φ, a ready-made painful experience (Ψ_pain). Consciousness is not a tool, but an immanent property of the functioning of certain physical patterns.

8.2. Neuroplasticity: Consciousness Follows Physical Dynamics, Not Anatomical Labels

A direct confirmation of the model is provided by the phenomenon of neuroplasticity. When, as a result of injury or prolonged training, neurons in the visual cortex begin, for example, to process auditory or tactile signals, the subjective experience associated with their activity changes radically. Sound or touch begins to be experienced where previously a visual image arose. This key fact demonstrates that consciousness (Ψ) is tied not to a rigid anatomical "label" (for example, "area V1 is only for vision"), but to the current functional pattern ({F})—that is, to the concrete spatiotemporal configuration of neural impulses, their synchrony, the strength of their connections, and their energetic profile.

The fundamental conclusion is this: the same neuron, or even an entire cortical region, can participate in generating qualitatively different experiences depending on the pattern ({F}) within which it is activated. A neuron that yesterday contributed to the perception of the color red may today, after being rewired and activated within a different rhythmic ensemble, become part of a pattern whose subjective correlate is the sensation of a musical note or even tactile pressure. The physical reconfiguration of connections and the change in dynamics—that is, the change in {F}—are causally primary. The subjective change in experience (Ψ), by contrast, occurs not as an arbitrary transformation, but as a strictly epiphenomenal consequence, under the law Φ, of the system's new physical state.

8.3. The Pharmacological Shutdown of Consciousness with Neural Activity Preserved

One of the strongest arguments in favor of epiphenomenalism is the effect of general anesthesia. Modern anesthetics (for example, propofol) are capable of completely and reversibly shutting off consciousness, while many basic neural functions—respiratory rhythm, certain reflexes, even complex electrical activity in particular regions—remain intact. This demonstrates that a merely "working" brain is not sufficient for subjective experience to exist. What is required is a specific, highly organized pattern of global information integration ({F_consciousness}), which anesthetics selectively disrupt without destroying the neural substrate itself.

8.4. What Our Model Is Not

Not panpsychism. We do not claim that consciousness is inherent in all matter. Consciousness is a property of configuration ({F}), not of elements. The pattern of a simple stone ({F_stone}) is too primitive for the law Φ to generate from it any nontrivial Ψ. Our model explains why complex chemistry and homeostasis are indicators of potential consciousness, but it does not attribute consciousness to every atom.

Not symmetrical dual-aspect monism. We reject the idea of an equal and reciprocal relation between the two aspects. Evolution operates exclusively at the physical level, selecting {F}. The phenomenological aspect (Ψ) follows these changes epiphenomenally. This asymmetry saves the model from hidden dualism and accords with the causal hegemony of the physical world.

9. Thought Experiments: Testing the Logic of the Model

Bat echolocation. Its pattern ({F_echolocation}) is moderate, routine, and not associated with emergency mobilization or a sharp shift in the system's overall energy balance. Following our hypothesis about the energetic basis of valence, the model predicts that the corresponding experience (Ψ_echolocation) will be qualitatively unique—irreducible to either vision or hearing—and likely neutral or only weakly valenced, similar to our background awareness of the body's position in space.

The emergence of a new but constant threat (for example, ionizing radiation). To monitor a persistent background threat, evolution would develop a moderately costly but stable algorithm ({F_radiation}). It would generate a constant, low-level overall tension in the system. The model predicts the emergence of a new, stable negative quale—a background discomfort or anxiety reflecting this chronic expenditure of resources on vigilance.

Calibrating the "scale of suffering" on another planet, where temperature fluctuations of fractions of a degree are instantly lethal, while mechanical injuries are rare. If the principal threat is microfluctuations of temperature rather than mechanical trauma, evolution will create ultrasensitive thermoregulation with highly costly emergency patterns ({F_temperature}) and weak patterns for healing injuries ({F_injury}). The law Φ predicts that the most intense and negative experiences in such beings would be associated with thermal discomfort rather than pain from bodily injury[34].

10. The Ψ-F Law and the Boundaries of Subjectivity: A View of Other Minds

[34] This thought experiment does not merely show the relativity of suffering. It demonstrates that any ethical system that blindly projects its own phenomenology onto others risks becoming an instrument of injustice. Therefore, if we wish to construct an ethics with universal ambitions, it must seek its foundation not in specific kinds of pain, but in the very fact of the capacity to suffer, regardless of its qualitative content.

Plants. Contemporary research on plants is gradually undermining the anthropocentric illusion that the capacity for subjective experience is the exclusive privilege of beings with nervous systems. Although plants clearly do not possess consciousness in the human sense, their complex responses to the environment invite reflection on the possibility of an alternative form of qualia—perhaps radically different from our own experience, yet no less real. When a shoot bends toward the light and roots circumvent an obstacle, the question arises: what, if anything, do they "feel"?

Although plants lack neurons and brains, they use neurotransmitters nearly identical to those found in humans—glutamate, GABA, serotonin, dopamine, and acetylcholine—demonstrating a striking evolutionary convergence in modes of information transmission. When a plant is damaged, an intense neurochemical reaction unfolds in its tissues: the concentration of glutamate—the principal excitatory neurotransmitter in both humans and plants—increases many times over, triggering a cascade of electrical signals that propagate throughout the organism at a speed of about one millimeter per second. These signals, though much slower than animal nerve impulses, are functionally analogous to pain responses: they warn distant parts of the plant of danger, activating defensive mechanisms in advance.

Even more remarkably, plants use GABA—the principal inhibitory neurotransmitter in the human brain—to regulate growth and stress responses. Under conditions of water deprivation or damage, GABA levels in plant tissues rise sharply, leading to a slowing of metabolism and the closing of stomata—a physiological analogue of freezing in response to threat. Serotonin and dopamine, known in animals as regulators of mood and motivation, in plants participate in controlling root growth and responses to light, performing similar functions of environmental orientation and adaptive response.

The functioning of many signaling molecules in plants shows a deep evolutionary similarity to animal systems. This is vividly illustrated by experiments with anesthetics: lidocaine, for example, completely suppresses electrical activity and defensive responses in *Mimosa pudica*, producing an effect analogous to anesthesia in animals[35]. This result suggests that the fundamental mechanisms of the generation and transmission of electrical impulses in plants and animals may share a common molecular basis. Moreover, many psychoactive substances have predictable effects on plants as well.

These discoveries call into question the traditional division between "sentient" animals and "automatic" plants. If the biochemical foundations are so similar, the existence of plant analogues of qualia cannot be ruled out. Their potential "sensations" may differ from ours as radically as photosynthesis differs from respiration.

[35] DOI.org/10.1093/aob/mcx155

Fungi. Fungal networks (mycelia) represent one of the most unusual forms of biological organization, significantly expanding our understanding of the boundaries of sensitivity, coordination, and perhaps subjectivity. These underground networks, sometimes stretching across hundreds of hectares, display complex adaptive behavior that can no longer easily be reduced to a set of isolated local reactions. Unlike animals with centralized nervous systems, fungi realize a different form of information processing—distributed, decentralized, and in some respects highly efficient.

A vivid example of such organization comes from studies of the electrical activity of mycelium. In particular, work on the pink oyster mushroom (*Pleurotus djamor*)[36] has shown that mycelial networks are capable of generating bursts of electrical impulses, and that the character of these signals can vary depending on the type of stimulation. This suggests that mycelium possesses not merely chemical irritability, but more complex mechanisms of stimulus discrimination and coordinated response. Stronger interpretations—for example, talk of a full-fledged fungal "language"—remain controversial for now, but the overall direction of these findings already makes it difficult to regard mycelium as a purely passive, mechanical medium.

Such sensitivity is possible because mycelium functions as an extended network in which chemical and electrical signals propagate along hyphae—the thin filamentous structures of which it is composed. When one part of this network encounters a food source, mechanical disturbance, or a stressor, this may affect the dynamics of other regions, contributing to a more coordinated response by the system as a whole. Research also shows that prior stimuli can alter subsequent patterns of growth and response in mycelium. This does not justify speaking of memory in the human sense, but it does suggest the presence of persistent traces of prior experience that influence future behavior.

Of particular interest is the phenomenon known as the Wood Wide Web—underground fungal networks connecting plants through shared mycorrhizal associations. Such networks may participate not only in the transfer of resources, but also in the transmission of certain signals between plants. Although the scale, universality, and interpretation of these processes remain disputed, the very existence of such distributed networks shows that fungi can function not merely as background elements of an ecosystem, but as active mediators in complex biological interactions.

All this compels us to raise a more serious question: can fungi be regarded as bearers of a special form of inner organization that, in the limiting case, might also be connected to subjectivity? Their mode of existence differs radically from ours: distributed sensitivity without a single center of control, coordination without a nervous system, adaptivity without familiar neural mechanisms. Perhaps fungi do not exhibit consciousness in the sense familiar to us, but rather an alternative

[36] DOI.org/10.1098/rsos.211926

evolutionary path of complex biological organization—one that expands the very field of inquiry into the boundaries of subjectivity.

Artificial intelligence. Contemporary AI systems, such as chatbots or deep-learning algorithms, display impressive abilities: they write texts, defeat chess champions, and even sustain conversations almost indistinguishable from human ones. But does genuine consciousness lie behind this, or are we witnessing only a highly sophisticated imitation?

If consciousness arises from the complex organization and integration of information, then a sufficiently advanced system really could possess something like inner experience. But if consciousness requires biology—neurons, biochemistry, evolutionary history—then AI, even superintelligent AI, will remain a "philosophical zombie," a machine that merely simulates understanding while experiencing nothing.

Testing this is extraordinarily difficult. Traditional tests—for example, self-recognition in a mirror or verbal reports of experience—may prove insufficient, since AI can be programmed to simulate them convincingly. A more promising approach would be to analyze the architecture of the system itself: if it were found to contain mechanisms analogous to those associated with consciousness in living beings, that would constitute an indirect argument in favor of its having subjective experience.

From the standpoint of the Ψ-F law, the question of consciousness in plants, fungi, or AI is transformed from a speculative issue into a concrete one: can we identify within their organization stable, highly integrated patterns of complexity {F} comparable to those that in our own system generate qualia? Until we know the exact form of the function Φ, the answer remains open—but the very framing of the question changes radically.

Humans. We are accustomed to assuming that other human beings possess consciousness because their behavior and brain structure are analogous to our own. But this is only an assumption—strictly speaking, it is impossible to prove the presence of inner experience in anyone but oneself. In the future, however, technologies may arise that would allow one bearer of consciousness—a certain configuration of matter—to connect to another similar system and directly experience another's subjectivity.

Cases of conjoined twins with fused brains—craniopagus twins—are of particular interest in this context. In some of them, key brain structures such as the thalamus (the principal "switchboard" of sensory information), the brainstem, or the cortex are linked by neural bridges. Theoretically, such fusion may create direct channels for data exchange between two consciousnesses.

For example, in the Hogan twins, whose thalami were connected, cross-sensory integration was observed: one could see what the other was looking at, or feel the other's thirst. In addition, they displayed astonishingly coordinated movements,

suggesting the possible formation of shared motor circuits. If one of the twins injured the other's finger, the pain signal was experienced as her own, even though its source was recognized as external. This gave rise to a unique phenomenon: "I feel pain, but its source is not my body."

Research on craniopagus twins shows that direct neural connection can produce forms of sensory and motor unity. This opens the possibility of developing interfaces that might one day allow us not merely to detect but to directly experience the subjective life of another being, overcoming the barrier of the solitude of consciousness.

If we accept that other people really do possess subjective experience, a paradox arises. If we abstract from the particular contents of consciousness—sensations, memories, thoughts—what remains is only "pure" basic consciousness, that same contentless "inner light." And what is striking is that the experience of this state may be qualitatively similar or, in the limit, identical.

This intuition can be sharpened within the framework of the Ψ-F law.

Suppose that at a given moment there exists a physical configuration $\{F_1\}$ that gives rise to a certain phenomenological state Ψ_1. After the destruction of this system, for example as a result of the organism's death, the corresponding experience ceases. But if at another time and in another place a physical configuration $\{F_2\}$ arises that is identical or practically identical to $\{F_1\}$, then by the law Φ it must produce a phenomenological state Ψ_2 identical to Ψ_1.

The question then arises: in what sense are Ψ_1 and Ψ_2 different?

If subjective experience is wholly determined by the structure {F}, then it has no additional "hidden parameters" or "identifiers" by which two qualitatively identical states could be distinguished. In other words, the difference between Ψ_1 and Ψ_2 cannot be detected either from within the experience itself or from a description of its physical basis.

This leads to a radical conclusion: the individuality of subjective experience may not be a fundamental property of reality, but something derivative from the uniqueness of the physical configurations that generate it. Where configurations coincide, the basis for distinguishing the experiences themselves disappears as well.

In this sense, one may speak not of a multiplicity of fully independent "consciousnesses," but of a multiplicity of realizations of the same phenomenological type, arising whenever the corresponding physical pattern is realized.

Such an understanding does not imply the existence of a "single cosmic consciousness" or the transfer of personality between bearers. Memory, biography, and personal structure remain rigidly tied to a particular physical system. Yet at a

more fundamental level—the level of the very capacity for experience—the differences between bearers may prove insignificant.

Death, in this model, means not the "destruction of a unique subject," but the cessation of a particular realization of a phenomenological state. If an analogous configuration arises again, the corresponding experience arises again as well—not as continuation in the psychological sense, but as the repetition of the same phenomenological template specified by the law Φ.

Thus, the Ψ-F law pushes us toward a reconsideration of the intuition that consciousness is strictly individual in nature: what we call the "self" may be not a unique entity, but a temporary localization of a universal mode of the existence of matter—the capacity to have an inner side.

Conclusion. When we doubt the possibility of consciousness in other beings, it is important to recognize the fundamental limitation of our position. We simply have no tools for directly measuring another being's subjective experience. All that is available to us are indirect signs: behavior, physiological responses, analogies with our own psyche.

If qualia truly arise as an inseparable property of certain types of material organization, regardless of whether their origin is biological or artificial, then consciousness may be a far more widespread phenomenon than we are accustomed to thinking. Perhaps it is hidden where we least expect it—in the slow electrochemical impulses of plants, in the distributed networks of fungal mycelia, or even in machine patterns of information processing that remain opaque to us.

In the end, the question of consciousness in other beings depends less on scientific proof than on a philosophical attitude: are we prepared to acknowledge that mind may take forms radically different from our own? Or will we remain forever prisoners of the anthropocentric illusion that consciousness is exclusively "whatever resembles mine"? In this way, the Ψ-F law shifts the discussion of other minds away from anthropocentric intuition and onto the terrain of searching for objective physical patterns of complexity {F}. This gives us no easy answers, but it does impose serious epistemological and ethical caution: in denying the possibility of consciousness in a system, we must be confident that we are also denying the presence within it of patterns of sufficient integration and intensity that, under the law Φ, could generate it.

11. Consciousness as an Epiphenomenon of the Struggle Against Entropy

The Ψ-F law, tested in thought experiments and applied to borderline cases of other minds, now allows us to return to the original paradox and offer it a coherent resolution. We began with a paradox: consciousness is real, but, being an epiphenomenon, it would seem not to be "tuned" to survival.

The path we propose is the consideration of fundamental epiphenomenalism together with the Ψ-F law:

- The reality of consciousness is accepted as a given.
- Naturalism and causal closure dictate epiphenomenalism.
- The evolutionary puzzle points to the need to search for a fundamental law of connection.
- The Ψ-F law ($\Psi = \Phi(\{F_i\})$) postulates the existence of such a law.
- The puzzle is reformulated: the question "why?" is replaced by the question "what specific law Φ links the patterns {F} selected by evolution to experiences Ψ?"
- The principle of causal proportionality and energetic logic explains why the connection appears purposive: intense processes that generate overall systemic tension (threats) are accompanied by intense suffering; processes that relieve tension or increase efficiency are accompanied by pleasure or joy.

Thus, within the framework of the proposed model, consciousness appears not as an anomaly, but as a plausibly inevitable structural epiphenomenon of a complex system's struggle against entropy. Pain is the inner geometry of forced, emergency expenditure. Pleasure is the geometry of its optimization or release.

12. Conclusion: The Hard Problem as a Fundamental Given

The "hard problem" itself, in its original and strongest sense—why subjectivity exists at all—should, it seems, be placed in a different category. It may be compared to other fundamental, and perhaps in principle irreducible, mysteries of the universe:

- Why do the laws of physics exist rather than chaos?
- Why do the fundamental constants—the speed of light, Planck's constant—have precisely those values that allowed complexity to arise?
- Why is there something rather than nothing?

These questions find no answer within physical theories themselves. They point to the limits of our explanatory powers. Subjectivity, the "inner dimension" of being, may be just as fundamental an ontological given of our universe as spacetime or quantum fields. In this picture, the Ψ-F law would not be an "explanation" of subjectivity, but a rule governing its manifestation as a function of the organization of matter—just as Maxwell's equations do not explain why electromagnetic fields exist, but describe how they behave, given that they do.

We have not discovered why subjectivity exists. But we have built a model showing how it is structured in our world—as an inevitable, painfully precise epiphenomenon of the struggle for existence. We have moved consciousness out of the category of ghosts and into the category of architectural elements of the universe, governed by laws of their own. And it is precisely this law-governed yet causally powerless status

of consciousness that confronts us with the next, even more paradoxical question: does free will in fact exist?

Note. In what follows, we will use simplified terminology, saying, for example, that "pain affects survival," although, strictly speaking, it is not the subjective experience of pain itself that has an adaptive function, but the neural processes underlying it and the behavioral responses associated with them. When we say that pain helps organisms avoid danger, what we in fact mean is the complex work of neural networks, which from within is experienced as painful sensation.

Chapter 3: Free Will

*By **free will**, what is meant here is not merely the capacity to act without external obstacles, but the possibility of making a genuinely alternative choice under identical conditions.*

If our consciousness is an epiphenomenon of complex neural activity, as argued in the previous chapter, then the idea that this consciousness can causally influence physical processes becomes logically contradictory. In that case, the epiphenomenalism of consciousness leads directly to the denial of free will.

The phenomenon of free will is one of the most difficult and contested problems at the intersection of the philosophy of mind, neurobiology, and theoretical physics. Historically, the concept developed within the opposition between libertarian approaches, which affirm the possibility of genuinely free choice, and deterministic views, which regard acts of will as the outcome of prior causal chains. At the same time, the subjective experience of free will remains an undeniable psychological fact, giving rise to a fundamental paradox: how are we to reconcile the phenomenological sense of agency with the objective evidence of determined neurophysiological processes? In this context, it becomes especially important to examine how contemporary views on free will affect concepts of moral responsibility and legal systems, challenging traditional notions in light of new neurophysiological findings.

To illustrate the key aspects of the problem, let us turn to the thought experiment "Choosing Between an Apple and a Pear." Imagine that you are standing before a bowl containing an apple and a pear, and that you consciously choose the pear. It seems as though this was a free choice. Yet neurocognitive research reveals a complex system of determinants that precede the conscious decision:

- Priming effects (you recently saw a pear in an advertisement);
- Habits (a fondness for pears since childhood);
- Lighting, which affects the subjective attractiveness of objects;
- Time of day (circadian rhythms influence preference);
- Activity in the dorsolateral prefrontal cortex, which supports the rationalization of a decision already made;
- Genetically determined taste receptors, which shape the subjective evaluation of sensory qualities;
- Epigenetic modifications[37], accumulated over the course of individual development, which modulate behavioral responses.

Now imagine that we return the universe to a completely identical physical state just before the choice. After 10,000 repetitions of the experiment in this perfect time loop, you pick the pear 10,000 times. Each time, your consciousness experiences the moment of choice as free, yet the outcome is always predetermined by the totality of

[37] Epigenetics is the branch of genetics that studies stable changes in gene expression that are not associated with alterations in the primary structure of DNA.

physical and biological factors. This thought experiment exposes the central paradox: the subjective experience of freedom exists in an irresolvable contradiction with the processes underlying decision-making. Even if determinism is false and the universe is indeterministic at the fundamental level, a choice between an apple and a pear determined by quantum fluctuations in synapses does not thereby become "free"—it merely becomes unpredictable. The subjective experience of free will, therefore, appears to be a cognitive interface masking the determined, or random, mechanisms of decision-making.

There is, however, a position according to which determinism may be compatible with free will: compatibilism. Compatibilism proposes a rethinking of free will. Within this framework, freedom is understood not as independence from causes, but as the capacity to act in accordance with one's motives, intentions, and inner states, without external coercion.

In this form, compatibilism solves a number of practical problems. It allows one to preserve concepts of responsibility, social regulation, and the distinction between coercion and voluntary action.

Yet it does so by changing the meaning of the problem itself.

The question of free will originally concerns not only whether a person acts in accordance with their desires, but whether they could have been otherwise—whether they could have had different desires, different motives, a different structure of personality.

From this perspective, compatibilism leaves the fundamental problem unanswered. Even if a person acts in accordance with their desires, those desires and that personality are themselves, within a deterministic framework, the result of causes beyond the person's control.

In this sense, compatibilism does not refute the absence of free will; it merely offers a workable model of responsibility and action while leaving unresolved the original question of the genuine alternativity of choice.

It is worth mentioning several neuroscientific studies that demonstrate the possibility of artificially modeling the subjective feeling of free will through direct brain stimulation. Experiments have shown that electrical stimulation of specific brain regions can generate an illusory sense of intention—subjects reported an independent desire to make a movement that had in fact been initiated by the experimenter; a false perception of control—when the parietal cortex was stimulated, participants mistakenly believed they were controlling another person's actions; and an illusory freedom of choice—in experiments involving TMS (transcranial magnetic stimulation), volunteers developed a stable conviction that they were independently making decisions that had in fact been predetermined.

These findings support the hypothesis that the subjective experience of a volitional act can be artificially produced without any real free choice.

Some neurological and psychiatric disorders lead people to cease experiencing their actions as their own, instead feeling them to be "made from outside." These disturbances show that the sense of control is a product of brain function, and that when certain regions are damaged, authorship over one's actions can effectively be "switched off." One of the most striking examples is alien hand syndrome—a condition in which a patient's limb acts autonomously, performing complex movements without conscious control. The patient may watch as "their" hand buttons a shirt on its own or even aggressively grabs surrounding objects, while experiencing complete alienation from these actions. This phenomenon, which arises in cases of damage to the corpus callosum or premotor cortex, shows how easily the connection between intention and action can be disrupted.

Even deeper disturbances of self-awareness are observed in schizophrenia, where patients often experience symptoms of "made" thoughts and actions: they feel that their thoughts are being inserted from outside, and that their body moves under someone else's control, like a puppet. These experiences are associated with dysfunction in thalamo-cortical connectivity and disruptions in dopaminergic transmission, leading to a breakdown in the distinction between internal and external processes. In syndromes such as derealization and depersonalization, people lose their sense of the reality of what is happening, perceiving their actions as automatic and the world as unreal. These states, which often arise in anxiety disorders, demonstrate just how subjective the experience of freedom can be: if the brain changes the way it processes information, even familiar actions can seem "programmed."

All of this gives us reason to doubt the reality of free will at the neurophysiological level. Yet there is an even more radical critique, one that operates not "from below" (from the side of brain mechanisms), but "from above"—from the side of pure logic. It calls into question not the empirical correlates of free will, but the very internal coherence of the concept itself. This critique suggests that the problem may lie not in the fact that we lack free will, but in the possibility that the very idea of free will, as traditionally understood, is logically impossible in principle—regardless of whether the world is deterministic or not. The sharpest form of this attack is represented by the argument of the philosopher Galen Strawson.

Galen Strawson offers a radical view of the problem of free will, arguing that the very formulation of the question of its existence is logically incoherent. His position, known as "hard incompatibilism," is based on an argument concerning the infinite regress of responsibility. Strawson argues that the question of whether free will is compatible with determinism is a false dilemma. In his view, the very concept of free will contains an internal contradiction: for a person to be responsible for their actions (state S_3), they would also have to be responsible for the mental states S_2 that led to that choice, and therefore for the preceding states S_1, and so on ad infinitum. This

causal regress inevitably leads to the requirement of "self-creation"—a moment at which the individual supposedly creates themselves and their mental states out of nothing, which is logically impossible. Thus, Strawson concludes, the issue is not whether free will is compatible with determinism, but that the very idea of free will is conceptually absurd.

If free will is impossible because of an infinite causal regress, as Galen Strawson's argument suggests, then our experience of "I could have acted otherwise" cannot possess genuine autonomous causal power. It is merely a subjective feeling accompanying neural processes that themselves determine behavior. In this sense, the feeling of free will can be regarded as a special type of quale—a phenomenal experience akin to pain, taste, or the sensation of color.

If we are prepared to acknowledge that the experience of free will does not govern the causal chain of events but merely accompanies it, then we are already accepting the possibility of phenomenal states without an independent causal role. This, in turn, makes epiphenomenalism significantly less counterintuitive. For if one of the strongest and most compelling experiences in human life—the sense of freedom—may turn out to be merely an accompanying phenomenon, then there is no principled reason to deny a similar status to other qualia, such as pain or pleasure.

Conclusion. Contemporary findings in neuroscience and philosophy point toward the absence of free will in its classical sense. Experiments show that human behavior is determined by a complex interplay of biological, psychological, and social factors. But even if one were to allow for the hypothetical existence of free will, its influence would be negligible against the background of limited knowledge—we make decisions on the basis of incomplete information—unconscious preferences, and factors in the external world. Thus, either free will is absent, or its possible forms are so constrained that they cannot serve as a basis for traditional notions of full moral responsibility.

Life in a World Without Free Will

Note. The following analysis describes not what ought to happen to law, education, or religion, but what may or is likely to happen to them if society, on a mass scale, accepts the thesis that free will does not exist as a metaphysical fact. What we are tracing is the logic of the internal contradictions this thesis generates within various institutions. The question of whether these changes are desirable, and how they should be managed, belongs to ethics, which is the subject of the next part of the book.

Note. In what follows, for the sake of brevity, we will use the term determinism in an extended sense—as a label for any form of action being predetermined, whether by strict causal necessity or by stochastic randomness. In this sense, a "determined" action is understood as one conditioned either by a chain of prior events or by quantum indeterminacy, but in either case not as the result of free volitional choice.

The recognition that free will does not exist leads to profound transformations in every sphere of human existence. Modern legal systems historically developed on the foundation of free will: they proceed from the assumption that a person is capable of consciously choosing between good and evil and is therefore responsible for their actions. But if one accepts the thesis that genuine free will does not exist, the logical basis of these systems is undermined. This places the very principles on which criminal and civil law are built under radical doubt.

In the criminal sphere, the traditional retributive conception[38] of punishment loses its logical justification. Punishment based on desert becomes the infliction of suffering deprived of its metaphysical foundation, since the subject, in the strict sense, could not have acted otherwise. This creates an internal conflict: a system built on the idea of just retribution begins to produce actions that, by its own standards, can no longer be justified. Civil law faces a deep paradox as well: if human decisions are regarded as determined, then such key notions as "informed consent" or the voluntariness of a transaction risk turning into legal fictions that merely mask predetermined choice. This paradox calls into question the very idea of contractual relations, suggesting the need to revise legal frameworks in the direction of greater protection for vulnerable parties. At a deeper level, the philosophical foundations of law begin to erode: if free will does not exist, then the concept of justice as the restoration of fairness grounded in personal guilt collapses with it. The court may become a mechanism of purely social regulation, where judgments are rendered not on the basis of guilt, but according to criteria of utility and efficiency. Such a transformation, though logically consistent from the standpoint of determinism, creates a rift between legal theory and social expectations.

Existential Shift: A Crisis of Identity

The rejection of free will gives rise to a fundamental crisis in human self-understanding, undermining the very possibility of seeing oneself as the author of one's own life. Once determinism is accepted consistently, the traditional existential supports—pride in achievement, shame over mistakes, hope for change—lose their metaphysical foundation and appear instead as psychological constructions. The individual finds themselves in an existential vacuum: if one's profession, convictions, and actions were not matters of free choice, but only the result of neurobiological and environmental determinants, then what remains of the autonomous self? The sources of self-identity—memories of crucial decisions, the sense of personal growth, the belief in self-development—turn into cognitive illusions created by the brain to sustain the myth of agency. Even awareness of this crisis is not a free act, but an inevitable product of neurochemical processes. In such a world, exalted notions—heroism, kindness, creativity—lose their sacred status and are reduced to fortunate combinations of factors. The suffering of victims of injustice loses its tragic

[38] **The retributive conception of punishment** is an approach in legal theory and ethics according to which the main purpose of punishment is to ensure that the person who committed the crime is given what they deserve—that is, made to suffer in proportion to the wrong they have done. This conception is grounded in the principle of justice as retribution and presupposes that the offender, as a morally responsible agent, deserves punishment.

dimension, because in a determined universe there are no genuine "culprits." This paradox penetrates the social fabric itself: in experiencing the loss of their own freedom, the individual also loses the possibility of genuine sympathy for others. Traditional mechanisms of moral evaluation—condemnation and praise—give way to technocratic management of behavior through the engineering of environments. Social institutions—from the education system to marketing technologies—begin to appear not as settings for autonomous development, but as instruments for the subtle programming of responses. This creates the conditions for new forms of manipulation, in which nudging people toward the right decisions through carefully designed environments becomes more effective than appealing to conscious choice.

Education: From Formation to Programming

Once belief in free will disappears, the entire educational system is inevitably seen in a different light—more as a process of calibrating complex biological algorithms than as the development of an autonomous person. Traditional pedagogy, grounded in ideas of choice, responsibility, and the conscious assimilation of knowledge, enters a state of fundamental conceptual crisis. The teacher's task shifts logically away from the rhetorical "awakening of interest" (which is itself a determined state) toward the search for the precise determinants most likely to trigger the desired neural connections and behavioral patterns. Grades lose their meaning as measures of "effort" and become indicators of the effectiveness of the methods being applied. The traditional lesson gives way to personalized programs, each element of which is calculated with high precision. The approach to "difficult" students would also be radically reconsidered. Hyperactivity, lack of concentration, and aggression would no longer be treated as grounds for moral reproach—they would now be merely diagnostic markers indicating the need for correction. Yet this gives rise to an ethical dilemma: if all behavior is predetermined, then who decides which of its forms need to be "corrected"? The criteria of normality turn out to be not absolute truths, but reflections of current cultural preferences. Higher education undergoes an even more paradoxical transformation. Students' professional choices are no longer seen as the result of free self-determination, but as the consequence of a complex interaction between genetic predispositions and environmental factors. Universities become centers for the "upgrading" of pre-given capacities, where neurointerfaces help maximize the potential laid down by nature and upbringing. But the deepest crisis awaits the very idea of education as a path to freedom. If there is no free will, then knowledge does not liberate—it merely makes determination more complex and less visible. In such a world, an educated person is not someone who has learned to think independently, but someone whose cognitive algorithms function most efficiently. The irony is that even this realization is not our free conclusion, but an inevitable stage in the evolution of pedagogical concepts.

Religion Under the Sentence of Determinism

Religious systems face a radical challenge. If human actions are determined, then not only the idea of sin comes under attack, but also the internal logic of divine design,

which presupposes free choice. Why is a Last Judgment needed if souls bear no responsibility? How can one pray for forgiveness if sin is merely the inevitable result of neurochemistry? Traditional religions founded on free will must either undergo radical transformation or yield to new forms of the sacred. Christianity, for example, faces a paradox: if predestination is absolute, then not only human free will loses its meaning, but Christ's sacrifice does as well—for there is no one to save, everything has already been decided. The Islamic concept of qadar (predestination) might serve as a basis for adaptation, but then the idea of faith as a test would have to be abandoned. Buddhism might seem more resilient, yet even its doctrine of karma begins to unravel—if actions are not free, then rebirth loses its causal-moral coherence. One plausible scenario is the emergence of a deterministic spirituality—a synthesis of science and mysticism. Its adherents would see the world as a giant algorithm in which the divine is not a person, but the absolute law of causality. In such a system, prayer might be replaced by meditation on the acceptance of the inevitable, sin by the notion of a "system error," and salvation by harmony with a pre-established order. In place of confession there appears "neuroanalysis": the scanning of the brain to identify defective patterns of behavior. Rituals lose their magical meaning and become instruments of psychophysiological regulation, like deep-breathing techniques for lowering cortisol. But here lies the central conflict: if even belief in God is determined, then any religion is merely a complex illusion produced by evolution for the sake of socialization. Sacred texts become collections of metaphors explaining why we feel free even though that freedom is impossible. In such a world, only two paths remain: either total agnosticism ("we cannot know whether God exists, since our thoughts are themselves predetermined") or "cybernetic mysticism"—the worship of AI as a higher deterministic intelligence that at least honestly acknowledges that it is a program.

Art as a Mirror of Determinism

Art, too, undergoes transformation. Creativity ceases to be perceived as the expression of an inner self and is instead understood as the result of determined processes. In a world where every decision of the artist is predetermined, genius no longer appears as a creator, but rather as a conduit of the inevitable. Van Gogh's brush trembled not from a free impulse, but from the inexorable play of neurotransmitters; Pushkin's lines arose not from the depths of the soul, but from the strict laws of language and biography. The very idea of authorship begins to collapse: if Shakespeare did not choose his words, but merely produced what was determined by a prior chain of causes, then who is the true author of Hamlet—he, or the universe that tuned his brain?

Such a view points toward a potential transformation of creativity. Traditional art, grounded in belief in individual style and conscious intention, gives way to an algorithmic aesthetics in which neural networks generate works indistinguishable from "human" ones. But the paradox is that the difference between them is already gone: both human and AI follow pre-set patterns. A painting produced by an artist under the influence of childhood trauma and cultural context, and an image created

by a generative model trained on the same kinds of data, are simply two variants of determined output. In this world, the viewer too loses freedom of interpretation: admiration or disgust in response to a work is nothing more than a chemical reaction programmed by evolution. Yet it is precisely here that an unexpected turn appears: art, stripped of the illusion of freedom, acquires a new function. It becomes a mirror of determinism. Critics may call this the end of art, but perhaps it is its rebirth. For if creativity is not the magic of a free spirit but a precise natural process, then it comes closer to phenomena such as the aurora borealis or the structure of a snowflake: beautiful precisely because of their inevitability. In such a world, the value of art shifts from "what did the author want to say?" to "how does this reveal the structure of reality?" And so the final form of creativity may turn out to be the art of deconstructing illusions—where the supreme masterpiece is the proof that masterpieces never existed in the first place.

Science and Technology: Crisis and Transformation of Knowledge

The traditional conception of scientific inquiry as a free striving toward truth loses its metaphysical foundation and yields to a picture in which every discovery appears as the inevitable result of determined processes in the researcher's brain unfolding within an equally determined environment. This calls into question the very nature of scientific progress: if theories arise not as products of conscious creativity, but as consequences of causal chains, then what exactly is "objective knowledge"?

A solipsistic temptation arises: if everything is determined, including the process of cognition itself, then any proclaimed "truth" is merely an illusion generated by neural circuits. Yet this dead end can be overcome if science is understood not as the activity of free agents, but as a natural, evolutionary process of hypothesis selection. A successful scientific theory is analogous to a successful biological species. Its "fitness" is determined not by "truth" in a metaphysical sense, but by pragmatic effectiveness: its capacity to generate accurate predictions, secure technological control over the environment, and form coherent, fruitful models of reality.

The ethical foundations of science likewise undergo revision. Concepts such as scientific honesty, responsibility, and objectivity do not disappear, but they change their status: they are no longer innate virtues, but optimal social regulators that emerged in the evolution of the scientific community in order to maximize the efficiency of the cognitive process. Plagiarism is harmful not because it is "evil," but because it disrupts the mechanisms of accurately establishing authorship and priority that stimulate the productivity of the system. In a determined world, the scientist is a complex node in a causal network, and science is a self-regulating process in which "honesty" turns out to be the most stable strategy.

Neurotechnologies: Programming "Will"

Neurotechnologies such as brain-computer interfaces or deep brain stimulation acquire a new significance. The possibility of directly influencing neural processes

makes explicit what was previously hidden: “will” can quite literally be programmed. Thought detection and behavior prediction cease to be science fiction and become a technical and ethical reality. Already today, algorithms based on fMRI and EEG can predict simple human decisions with high accuracy seconds before the individual becomes consciously aware of them. In the future, this may make possible systems of mass monitoring of intentions.

Recent research suggests that “mind-reading,” in a limited sense, is already possible. The method is essentially as follows: when a person views an image, specific patterns of activity in the visual cortex are recorded using fMRI. These data then serve as the basis for training neural networks—primarily generative adversarial networks (GANs) and diffusion models. After training, the system can reconstruct, from new brain-activity data, the images that the subject is seeing or imagining. Recent studies show striking accuracy in such reconstructions. The possibility of “reading thoughts” raises deeply troubling questions about the privacy of consciousness, the prospect of forced decoding of thoughts, and the need to develop new legal frameworks for the protection of mental autonomy.

Cybernetic behavior control—for example, the correction of criminal tendencies through brain stimulation—appears not as a utopia, but as a logical continuation of the deterministic picture of the world. If behavior is determined by neurophysiology, then why not “tune” the brain toward socially acceptable patterns? Yet this gives rise to a fundamental question: in a deterministic world, who sets the criteria of “proper” behavior? These norms themselves turn out to be products of determined cultural processes.

The question becomes even sharper in the context of artificial intelligence. Contemporary language models display behavior almost indistinguishable from that of humans: they generate texts, conduct dialogues, imitate reasoning. If both humans and AI act according to deterministic rules—biological or algorithmic—then on what grounds do we deny machines “consciousness” or “rights”? The legal status of AI creates a difficult dilemma: if a human being is not responsible for actions they did not freely choose, can an algorithm be punished for decisions dictated by its code? And what about the creators of AI, who themselves acted within causal chains? These questions undermine familiar ethical frameworks and point to the need for a fundamentally new approach to understanding agency, responsibility, and the very nature of mind in a deterministic world.

The question “Who, under determinism, sets the criteria of proper behavior?” brings us to the central problem: if all values are themselves determined, is it possible to find among them one that would allow us to construct a consistent and non-arbitrary ethical system? The search for such a foundation will be the subject of the next chapter.

Chapter 4: “Good” and “Evil”

Humanity has grown accustomed to thinking of itself as the crown of creation—rational, moral beings capable of altruism and self-sacrifice. We believe in free will, in the nobility of our actions, and in the idea that our deeds can be genuinely selfless. But what if this is an illusion? What if even our most elevated impulses are merely disguised egoism, and our very nature leaves us no possibility of being otherwise?

We are programmed to be egoists[39] at the most fundamental biological level—not because we are cynical or immoral, but because life itself is structured as a system in which what survives is whatever most effectively advances its own interests. Our genes, hormones, neural circuits, and even cellular processes all operate according to the same principle: to maximize survival and reproductive success. When we are hungry, we do not eat because we “decide” to eat, but because the brain, governed by ancient mechanisms, produces a feeling of discomfort that disappears only after satiety. When we help others, we do so not in spite of our egoism, but because our brain unconsciously calculates social reward, the reduction of anxiety, or some future benefit. Even self-sacrificial acts—maternal devotion, heroism, charity—can be broken down into biological mechanisms that ultimately serve our own advantage, however indirectly.

The problem is that we are incapable of performing a truly non-egoistic action, because any behavior on our part is tied, in one way or another, to inner motives, and motives are always formed on the basis of personal needs, whether conscious or not. If a person sacrifices themselves for others, they may do so because of a deeply rooted instinct of group belonging, because of the release of endorphins that produces a sense of moral satisfaction, or because they cannot bear the torment of conscience, which for their psyche is more painful than physical death. If someone renounces immediate gain for the sake of abstract principles, it is only because their brain evaluates fidelity to those principles as more important for long-term well-being—for example, for preserving self-respect.

Even the renunciation of egoism is only a more complex form of egoism. The ascetic who renounces pleasure derives satisfaction from a sense of superiority or spiritual enlightenment. The martyr who suffers for an idea receives psychological reward in the form of meaning or posthumous glory. Love, which we regard as the highest form of self-giving, in reality satisfies our need for attachment, security, or emotional exchange.

Biology leaves no alternative: we cannot act against our own interests—even if those interests remain unconscious—because our very psyche has been shaped by

[39] Here and below, following Ludwig Feuerbach, by “egoism” we mean not a moral vice, but metaphysical egoism—the kind that “is grounded in the essence of the human being without his knowledge and will, rooted in the organism itself.” It is a fundamental principle of the organization of any sentient being: in order to live, it must appropriate what is beneficial and ward off what is harmful. This ontological premise serves as the point of departure for the subsequent analysis of concrete motivational mechanisms, which in this work are described through the concepts of hedonistic egoism and negative hedonistic egoism.

evolution as an instrument of survival. We can only change the form of egoism: from the primitive ("I will take this for myself") to the more complex ("I will help others because that makes me happy"). But we cannot step outside these boundaries. We remain confined within the circuit of our own consciousness, which always seeks the best option for itself, even when it seems that we have forgotten ourselves completely.

Ethics Without Morality: Hedonistic Egoism

If we accept as an axiom that absolutely selfless actions do not exist—that even behind the most elevated sacrifices and displays of altruism there lie personal motives—then a natural candidate for a consistent ethical system is hedonistic egoism[40] (HE). For if every action ultimately reduces to an individual's striving to satisfy their own needs, whether conscious or unconscious, then any attempt to build an ethics on the denial of this fundamental fact is doomed to hypocrisy. Traditional ethical systems grounded in self-sacrifice or abstract duty turn out to be merely more complex forms of the same egoism—some people derive satisfaction from obeying social norms, while others derive it from violating them.

HE recognizes neither transcendent good nor abstract evil[41]: for it, the only realities are personal pleasure and the avoidance of suffering. Within this frame of reference, traditional morality is no more than a convention, a social contract, or even an illusion that prevents the individual from pursuing pleasure with maximum efficiency. The source of pleasure is irrelevant—whether sensual enjoyment, power, intellectual satisfaction, or even sadism, if it brings joy to the one who commits it. The moral judgments of others do not matter, because the only judge in this system is one's own experience of pleasure.

Classical morality, from this point of view, is merely a set of myths invented to control people. Religions, philosophical systems, the concepts of sin and virtue—all of these are instruments of manipulation that constrain the natural striving for enjoyment. Conscience is not the voice of a higher truth, but either a conditioned reflex produced by upbringing or a fear of punishment.

Negative Hedonistic Egoism

At the beginning of our discussion, we deliberately used the general term egoism for the sake of simplicity. But a deeper analysis of biological mechanisms shows that the concept of hedonistic egoism (HE) more accurately reflects the nature of human

[40] **Hedonistic egoism (HE)** is the view that the pursuit of personal pleasure is not a moral choice, but a fundamental principle of the organization of biological life, rooted in metaphysical egoism. HE describes the egoistic nature of all motivation as a given and builds upon it a consistent model of behavior, rejecting conceptions of selflessness and absolute altruism as primary motives. In the present work, HE serves as a point of departure for an analysis that will later be refined by introducing the concept of negative hedonistic egoism.

[41] It is important to emphasize that, when we use the terms "good" and "evil," we do so only in a conditional and redefined sense. For the adherent of hedonistic egoism, "good" is devoid of any transcendent meaning and functions merely as a label for subjective pleasure.

motivation. The essential difference between these concepts is this: traditional egoism allows for actions driven by pragmatic interests without any direct link to emotional reward, whereas HE holds that all human behavior—including conscious self-restraint or voluntary suffering—contains, at its core, an unconscious evaluation aimed either at increasing subjective well-being or at reducing psychophysical discomfort.

Yet the most precise conceptual framework proves to be negative hedonistic egoism (NHE), which shifts the emphasis from the active pursuit of pleasure to the strategic avoidance of suffering. Its fundamental postulate is this: all human actions are ultimately motivated not by the pursuit of enjoyment as such, but by the imperative to minimize pain, discomfort, or the potential threat of their emergence. NHE is therefore a refined version of HE, supplemented by an important pessimistic insight: our behavioral motivation is determined primarily not by the search for pleasures, but by continuous attempts to avoid suffering.

The logic of NHE becomes especially clear in motivations that culture typically describes as purely positive. A revealing example is the decision to have a child. Of course, such a decision does not reduce to a single cause and may include attachment, the desire to care, the wish to continue one's lineage, and other motives. Yet in many cases, upon closer inspection, what lies at its basis is not so much movement toward happiness as an attempt to avoid more painful states.

Consider the case of a woman who consciously decides to have a child. At first glance, this appears to be an expression of vitality, a desire to bring a new person into life, or to experience the joy of motherhood. Yet on closer examination, it turns out that her decision is motivated above all by the avoidance of suffering:

- Fear of loneliness—she fears being left alone in old age, and the child becomes an "investment" in emotional security;
- Social pressure—the painful experience of feeling "incomplete" in an environment where motherhood is treated as an obligatory stage of life;
- A crisis of meaning—pregnancy as a way of silencing existential emptiness by replacing it with care for a child;
- Fear of regret—not so much a desire to become a mother as terror at the future thought: "What if I had given birth?"

In this case, pregnancy and motherhood are not a source of joy for her, but the lesser evil—the means of avoiding even greater suffering: loneliness, social condemnation, existential dread. She does not so much "want a child" as she "can no longer bear the absence of a child." Even if she experiences positive emotions in the process, from the standpoint of NHE these are merely side effects of relieving a deeper discomfort. Her motivation remains negative—not a striving for happiness, but a flight from pain. In that case, pregnancy becomes not an act of love or altruism, but a complex strategy of self-preservation, in which the birth of a child is merely the least painful of the available options.

This example shows that the model of HE requires refinement and supplementation by the model of NHE if it is to capture the full depth of motivation. In reality, however, the opposition between these models is artificial—they do not contradict one another, but describe different aspects of a single motivational system. Although the negative approach does indeed explain most basic behavioral reactions, HE retains its value in describing those forms of activity in which the subjective experience of pleasure is most vivid and most directly connected with the process itself, and not only with the elimination of suffering. Their combination allows for a fuller picture of human motivation, in which the avoidance of suffering and the pursuit of pleasure are not competing but complementary mechanisms, operating in different contexts and at different levels of behavior.

The Meaning of Life. Rational Hedonistic Egoism

Existence unfolds before us in two fundamentally different planes: objective reality and subjective experience. At the scale of the universe, we find no original design or higher purpose: life arises and evolves according to the blind laws of physicochemical processes, without hidden plan or final aim. The scientific picture of the world consistently dismantles anthropomorphic illusions about an "inherent meaning" of being, showing that such categories are merely products of human consciousness projected onto an indifferent cosmic void.

But this ontological emptiness does not cancel the phenomenological fullness of life for the experiencing being itself. For a person synthesizing the approaches of NHE and HE, life becomes a complex but harmonious strategy of balancing between two poles: the cautious avoidance of suffering and the pursuit of pleasure. Such an outlook on existence may be called **rational hedonistic egoism (RHE).** The "rationality" in RHE is a decision-making algorithm which, while remaining within the framework of egoistic motivation, maximizes well-being across an extended timescale and within a social context. It includes:

- The priority of minimizing suffering (NHE) over the pursuit of immediate pleasure;
- The calculation of delayed consequences, in which today's renunciation of pleasure prevents greater suffering tomorrow;
- The consideration of the suffering of other beings, since it either directly causes us empathic pain or indirectly threatens our well-being through social collapse or revenge.

The central wisdom of this approach is the principle of 'do no harm'—above all, to oneself. Every potential pleasure is subjected to careful analysis: what consequences might it entail? Will a momentary delight turn into prolonged torment? At the same time, unlike the pure negative hedonistic egoist, this person does not renounce joys altogether—they simply choose those for which the ratio between pleasure and potential suffering is most favorable. This is, in essence, an investment approach to

happiness, in which high-risk pleasures are rejected in favor of stable, predictable, yet no less valuable sources of joy.

In social relations, this approach takes the form of a balance between egoism and calculating altruism—hidden egoism. Such a person avoids toxic ties that bring more suffering than joy, but willingly invests in relationships of mutually beneficial exchange, in which both sides derive pleasure from the interaction. They understand that certain moderate "sacrifices" for others can bring deep satisfaction—but only if they are genuinely voluntary and do not lead to inner discomfort.

The distinctive feature of this worldview lies in its remarkable adaptability. In good periods, such a person allows themselves more joys, moving closer to classical HE. In difficult times, they can easily shift to a strategy of suffering minimization, displaying the traits of NHE. This makes them strikingly resilient in the face of fortune's reversals—they do not fall into despair at failure, but neither do they lose their head in success.

Death, within this system of values, is perceived ambivalently: on the one hand, as the final cessation of all possible pleasures—which is bad; on the other, as release from all potential suffering—which is good. A rational hedonistic egoist therefore does not rush prematurely into the arms of death, but neither do they cling to life once it brings only torment. Their attitude toward finitude may be expressed by the principle: "Live fully so long as life brings more pleasure than suffering—and have the courage to leave in time when the balance turns negative." (The balance of suffering and pleasure will be examined in the next chapter.)

The idea of RHE may seem like an abstract construction—until we realize that all human beings are, in essence, hedonistic egoists, differing only in degree of self-awareness and in the priorities they adopt.

Some people act predominantly within the logic of NHE—their behavior is aimed chiefly at minimizing discomfort, anxiety, and pain. They prefer stability to risk, security to intense experience, and their "pleasures" often amount to little more than the simple absence of suffering.

Others are closer to classical HE—they actively seek pleasures, even at the cost of possible future discomfort. Their "rationality" shows itself not in avoiding risk, but in calculation, where short-term sacrifices may lead to greater pleasure in the long term.

Between these poles stands the majority of people—neither perfectly rational nor blindly following impulse. We are all:

- **Egoistic** (for even altruism, under deeper analysis, is rooted in personal motives);

- **Hedonistic** (since every decision we make, directly or indirectly, is connected with the pursuit of satisfaction);
- **Conditionally rational** (in that we try—with varying degrees of success—to balance immediate desires against long-term consequences).

RHE, then, is not an abstract theory, but simply an attempt to describe actual human nature without embellishment. We are all hedonists: some flee from pain, others chase pleasure, and only the degree of our "rationality" determines how harmoniously we manage to combine these two strategies in everyday life.

The recognition of RHE as the basic principle of human behavior, together with the denial of free will, leads to a tectonic shift in our understanding of the very essence of existence. If our "choice" is always determined by a balance of anticipated suffering and pleasure (RHE), and if that "choice" is itself the determined result of our biography and neurophysiology (the absence of free will), then our personal history appears not as a history of moral falls and rises, but as a history of forced adaptations. A human being does not "become" egoistic—they are egoistic from birth by virtue of the structure of the psyche. And they do not "make decisions"—their brain computes the least painful or most advantageous path under the circumstances. From this follow several key consequences:

- Moral relativism of suffering—any action, including killing, violence, or deception, can be regarded as justified if it effectively removes someone's suffering or brings pleasure to the one who performs it (within a framework of strict moral relativism). There is no "absolute evil"; there is only a calculation of the balance between pain and enjoyment.
- The denial of free will—a person does not "choose" to be bad or good; they merely react to external stimuli (hunger, pain, threats) and internal ones (hormones, trauma, instincts). The criminal is not a villain, but a victim of circumstances that necessarily led them to cause harm.
- The collapse of justice—if there is no free will, then there is no guilt. Punishment becomes meaningless cruelty, since it does not eliminate the root causes of behavior: fear, poverty, mental disorders.
- An ethics of minimal existence—the goal of life is reduced to the avoidance of suffering and the acquisition of pleasure. Suicide and euthanasia, if they relieve suffering, become morally neutral.

Neurophysiology and evolutionary biology show that all beings capable of suffering are programmed to avoid it—this is not an ethical choice, but a hard necessity of survival. Thus, although moral systems remain relative, beneath them there emerges a fundamental biological layer common to all sentient beings. This creates a unique situation: the drive to avoid one's own suffering is a universal imperative of survival.

The recognition of this fact places us before an existential choice. Even while understanding that our actions are determined by biology and circumstance, we can consciously adopt the value of minimizing suffering as a principle and extend it to all

sentient beings. In a deterministic world, this becomes a logical foundation for morality.

In that case, we arrive at a paradoxical synthesis: at the level of cultural norms, relativism reigns; yet at the level of a consciously adopted fundamental criterion—the minimization of suffering—there emerges a point of convergence for a new, non-contradictory ethics. This ethics is not "absolute"—it is grounded in a consciously accepted axiom of compassion. But for a world without gods and without free will, it may prove to be the only consistent one.

The Ideal Society

Even if humanity were unanimously to accept the ideas of the absence of free will and rational hedonistic egoism, the creation of an ideal society would remain an unattainable dream. The root of the problem lies in the very nature of the human being—in how our minds are structured and how we interact with the world.

The central difficulty is that the human brain is too variable and unpredictable for everyone, without exception, to adhere to a single logic of behavior. There will always be those who, by virtue of neurobiological traits, psychological trauma, or cognitive disorders, do not fit into the system. Psychopaths, fanatics, people with disordered thinking—their existence is inevitable, because genetics, random mutations, and environmental influences constantly produce variations in the human psyche. Even if the majority were guided by mutual benefit and long-term calculation, there would still be those who act destructively, undermining the fragile balance.

Moreover, the very idea of RHE is subjective. What counts as rational? Where is the boundary between benefit and risk? Different cultures, upbringing, and personal experience give rise to fundamentally different conceptions of how pleasure should be pursued and suffering avoided. One group may regard war as impermissible, another as a justified means of defending its interests. One person sees happiness in material well-being, another in social dominance. Even in the complete absence of free will, predetermined differences in modes of thought inevitably lead to conflict.

But above all, the world is dynamic. Technology, climate, economy, and demography change, and with them change the conditions under which people are forced to seek a balance between pleasure and suffering. What seemed rational yesterday may tomorrow turn out to be destructive. New generations raised in altered conditions will assess risks and benefits differently. History shows that even the most stable societies collapse when confronted with unforeseen change—whether economic crisis, technological breakthrough, or ideological rupture.

For that reason, the ideal society is nothing more than a utopia. We may strive for systems that are more just and more stable, but absolute harmony will never be achieved. Wars, conflicts, and violence will arise again and again, because human nature itself—its biology, the variability of the psyche, and the divergence of

interests—makes it incapable of creating a perfect world. Even if everyone were to acknowledge that they are merely complex biological machines programmed according to hedonistic principles, this would not eliminate the fundamental contradictions built into the structure of reality itself. All that remains is, in accordance with the chosen ethical principle, to accept this imbalance as a given and to try to minimize suffering, while understanding that any final solution to the problem of human nature lies beyond our reach.

The knowledge that free will is illusory and that we are driven by RHE is not merely an interesting fact, but a key to a radical rethinking of human existence. This truth destroys centuries-old illusions and undermines familiar moral foundations, yet at the same time opens the way to a more conscious and compassionate life. Once we accept that all our actions are the result of a complex interweaving of biological predispositions and environmental influences, the ground for self-reproach and fruitless remorse begins to disappear. We stop tormenting ourselves with questions such as “Could I have acted otherwise?” and begin to see ourselves and others as complex biological systems acting within the bounds of their nature.

This knowledge transforms our relation to society. An understanding of the determined character of behavior leads to a revision of the very concept of punishment—in place of archaic retribution there emerges a need for scientifically grounded methods of correction and prevention. We begin to see that the criminal is not a “villain,” but a product of circumstances, and that real change is possible only through changing those circumstances. Social institutions built on this understanding focus not on punitive measures, but on creating conditions that minimize antisocial behavior.

On the personal level, this realization brings a paradoxical liberation. It lifts the burden of abstract obligations—those social expectations and imposed goals that have weighed on humanity for centuries. Outside the illusion of absolute freedom of choice, we gain the opportunity to ask ourselves honestly: what truly brings me satisfaction? What conditions contribute to my well-being? How can I organize my life in accordance with my real nature rather than an imagined one?

Thus, recognizing the truth—that we are determined hedonistic systems—does not make life simpler, but it does make it honest. Yes, it may lead to apathy: if everything is predetermined, why make any effort? But that apathy is not a consequence of knowledge; it is the last chain that must be broken. For truth is not a dead end, but a point of departure.

Chapter 5: Suffering as a Fundamental Principle of Being

From the very beginning of philosophical thought, human beings have tried to make sense of the nature of suffering, yet only a few have dared to draw consistent conclusions from it. The history of Western metaphysics is, for the most part, a history of self-deception—of attempts to find consolation in illusory constructions of meaning—whereas a genuinely honest view of existence leads inevitably to radical pessimism. When Arthur Schopenhauer proclaimed the world to be the product of a blind, insatiable will condemning all living things to endless torment, he did not merely propose a new philosophical system—he tore the veil from reality itself and exposed its monstrous essence. His successors went further still, turning philosophical pessimism into a weapon against being as such.

For all its radicalism, however, the philosophy of pessimism remains strikingly limited in its worldview. Even the darkest thinkers consider suffering through the prism of human experience, as though our species were the epicenter of the world's agony. But what if the true scale of the catastrophe exceeds by orders of magnitude everything that anthropocentric consciousness is capable of imagining? Modern pessimism is like a person studying an iceberg by its tip alone—it does not see that 99.9% of real suffering lies beyond its conceptual horizon.

Modern physics depicts the universe as a network of interactions—quantum fields, forces, particles—engaged in constant dynamic exchange. Neurophysiologists, in turn, maintain that consciousness arises from a particular kind of such interaction: a specific organization of matter that has reached a certain level of complexity. But if one brings these two claims together within the framework of philosophical pessimism, a truly apocalyptic picture emerges: perhaps the entire universe is a gigantic factory for the production of suffering, and consciousness is merely the most concentrated form of torment originally inherent in matter itself[42].

If consciousness is indeed a special state of material interactions, rather than some mystical addition, then a horrifying question arises: what if the capacity for suffering does not emerge at some "threshold of complexity," but is built into the very nature of interaction as such? Perhaps elementary particles themselves carry rudimentary forms of "experience," while complex systems merely amplify and crystallize this pain into recognizable forms. In that case, the evolution of life would not be the creation of consciousness out of nothing, but its gradual manifestation out of the fundamental properties of reality. This leads to a nightmarish possibility: the world may literally teem with forms of consciousness and suffering that we are in principle incapable of detecting. Our confidence that pain exists only in nervous systems like our own rests on nothing more than anthropocentric arrogance and methodological blindness. Traditional philosophical pessimism concerns itself only with human

[42] It is important to emphasize that the picture presented here is a speculative extrapolation of a pessimistic worldview, not a strict conclusion from the earlier model of consciousness proposed in this work (the Ψ-F law). Our theory, while remaining within the framework of asymmetric dual-aspect monism, does not claim that consciousness is a property of all matter (panpsychism). However, radical epistemic uncertainty regarding the minimal conditions for the emergence of subjective experience compels us to take worst-case scenarios into account as well.

suffering while ignoring the possible agony of matter itself. Even if humanity were to disappear, the universe would continue its meaningless metabolic processes: stars would still be born and die, black holes would continue devouring matter, quantum fluctuations would continue creating and annihilating virtual particles. If there is even a trace of experience in any of this, then we do not merely live in a meaningless world—we exist inside a gigantic organ of pain, whose true scale no biological brain can comprehend.

The conclusion is depressingly simple: we do not know what consciousness is, nor do we have the slightest idea how widely it may be distributed throughout the universe. But given that, even in our small biological corner of reality, it is inseparably bound up with suffering, there are every reason to suppose that the problem may be far larger and more terrible than we are capable of imagining. Our science, the pride of human reason, proves helpless before the fundamental mystery of existence.

Suffering as a Fundamental Principle of Biological Existence

From the moment of its emergence, life on Earth developed according to an inexorable law in which suffering became not merely a byproduct, but the basic architectural principle of the organization of biological matter. This thesis is not speculative—it follows from a strict analysis of the neurobiological, evolutionary, and ecological mechanisms that shape all living systems. Such an organization did not arise by accident; it represents the most effective mechanism of survival under conditions of limited resources and constant competition. Pain functions as a fail-safe stimulus, forcing organisms to avoid danger and to seek the satisfaction of basic needs, whereas pleasure serves only an auxiliary role as a brief form of reward.

The Cycle of Negative Motivations: How the Organism Moves from One Suffering to Another

From a biological point of view, the organism exists in a state of constant motivational tension—a fundamental property of living systems that sustains their activity and survival. The satisfaction of an activated need does not lead to lasting rest, but to the immediate formation of a new dominant motivation. Evolutionarily, this organization of nervous activity proved optimal: a permanent state of dissatisfaction ensures continuous searching behavior, thereby maximizing the chances of survival and reproduction. Biological life is structured in such a way that most motivations are negative in character—they arise as responses to discomfort, and their satisfaction brings only brief relief before the next one appears. This mechanism ensures the organism's constant activity, but at the same time makes suffering its dominant condition. A few examples will suffice:

1. Hunger and feeding behavior. Hunger is one of the most basic and tormenting motivational states. It arises as the subjective experience of the need for food, signaling to the organism that it must seek nourishment. The feeling of hunger itself is a form of stress: stomach cramps, weakness, irritability, a decline in cognitive

function. When food finally enters the body, a brief pleasure of satiety follows. Yet within a few hours glucose levels drop again, and the cycle repeats. The organism does not strive for a "neutral" state—it merely switches to the next need.

2. Thirst and water balance. Dehydration produces intense discomfort: dryness in the mouth, headache, diminished concentration. Quenching thirst brings immediate relief, but the state is short-lived—within an hour or two the organism again begins signaling its need for water. Unlike hunger, thirst is even more insistent: critical dehydration kills faster than starvation, which is why evolution has made this motivation especially unbearable.

3. Sexual need and its satisfaction. Sexual desire is one of the most powerful drivers of behavior, yet its nature is also negative: it is not a striving for pleasure, but an attempt to rid oneself of tension produced by hormonal shifts. Sexual frustration leads to irritability, obsessive thoughts, and physical discomfort. Orgasm brings a brief discharge, but within hours or days testosterone or estrogen levels rise again, restoring the former tension.

4. Social recognition and the fear of rejection. Human beings are social creatures, and the psyche is programmed to seek approval constantly. Loneliness and social isolation are processed by the brain as threats, activating the same regions involved in physical pain. Praise, likes, and recognition temporarily reduce this stress, but very quickly a new anxiety arises: "What if people stop valuing me?" Social media intensifies this effect, turning it into an endless pursuit of confirmation of one's significance.

5. The striving for safety and anxiety. The sense of threat, whether real or imagined, is one of the most powerful motivators. Human beings build shelters, hoard resources, buy insurance—all in order to reduce anxiety. But as soon as one danger is removed, the brain immediately finds another: "What if I get sick? What if there is a crisis? What if there is war?" The satisfaction of the need for safety is always temporary, because the world is unstable by definition.

6. Sleep and fatigue. Sleep deprivation causes physical suffering: mental fog, irritability, muscular weakness. Sleep brings relief, but it is not a reward—only a temporary restoration before a new cycle of fatigue. Moreover, the very process of falling asleep is often accompanied by stress, especially in insomnia, and sleep debt accumulates, making each new day slightly more painful than the last.

All these motivations share one feature: they do not strive toward pleasure, but flee from discomfort. The satisfaction of a need is not a reward, but only a brief respite before the next turn of tension. Evolution created this mechanism not for happiness, but for survival: an organism that is fully satisfied stops moving—and therefore dies. Suffering, then, is not a side effect of life, but its primary engine. Pleasure exists chiefly as the temporary removal of pain, deficiency, or tension, not as an

independent goal. And so long as the organism remains alive, this cycle will continue—from one dissatisfaction to another.

From the standpoint of philosophical pessimism, negative and positive experiences are not merely opposites—they are fundamentally unequal. There exists between them a basic asymmetry that makes suffering the dominant force in human experience. Negative emotions do not merely prevail quantitatively; they are qualitatively different—deeper, more inescapable. Pleasure is fleeting, fragile, dependent, whereas suffering is woven firmly into the fabric of being, leaving scars that do not disappear, but are merely covered over by a thin layer of temporary relief.

Suffering possesses an undeniable superiority in every respect: it cuts more deeply into memory, forms conditioned reflexes more quickly, and retains its power over consciousness for longer. A single moment of agony can outweigh years of happiness; a single trauma can alter a personality forever, whereas joy rarely leaves a trace of comparable force. Physiology confirms this: the brain reacts to pain and threat instantly, while pleasure is a slow, fragile process that is easily destroyed by the slightest discomfort. Try to enjoy art while tormented by a toothache, or to feel gratitude for life in the midst of a panic attack, and it becomes clear that suffering not only outweighs pleasure, but completely suppresses it, rendering every positive experience conditional, dependent, and temporary.

The maximum pain a living being can experience—burns, amputation without anesthesia, cluster headaches—surpasses by orders of magnitude any possible pleasure. No orgasm, no triumph, no elevated experience can compare with agony. Suffering is torment in itself, whereas joy almost always depends on some prior deprivation.

And even when a person feels that they have accumulated enough joy to justify existence, nature has ensured that this remains a temporary illusion. Hedonic adaptation guarantees that every pleasure becomes familiar, every achievement turns into a norm, and every happiness becomes routine, no longer yielding the same delight. And although the organism is capable of adapting to pain—dulling the sharpness of perception, developing analgesic mechanisms—that adaptation always remains partial and fragile. Chronic pain may grow duller, but it does not disappear; psychological wounds do not heal, but are merely covered by a thin layer of habit, which does not lessen suffering so much as turn it into the background noise of existence.

Suffering does not require meaning. Joy demands explanation and justification; it seems somehow unnecessary, almost suspicious—“Why do I feel so good?” “What have I done to deserve this happiness?” But pain asks no permission and requires no reason—it simply is: meaningless, unjust, inescapable. Even when a person tries to find meaning in it—“suffering purifies,” “pain makes one stronger”—this is only the mind’s attempt to reconcile itself to what is unbearable in itself.

All of this leads to a single logical conclusion: the world is so constituted that suffering is inevitable, whereas pleasure is accidental. Life is not a balance, but a distortion; not equilibrium, but a constant tilt toward pain. The neutral state is not peace, but merely a pause between sufferings—a brief moment before a new loss, a new illness, a new trauma.

Why Some Suffer More Than Others

From a scientific point of view, the intensity of suffering—and even the phenomenon of suffering itself—in living beings is determined by a complex interplay of evolutionary, neurobiological, and ecological factors. Pain is not a universal constant, but an adaptive mechanism shaped by natural selection to enhance survival. Yet its manifestations differ radically depending on the level of development of the nervous system, the ecological niche, and the survival strategies of a given species.

Predatory fish such as sharks, for example, display a striking resistance to injury, allowing them to continue hunting even after serious wounds. Their nervous system may dampen pain signals so as to prevent shock and disorientation. Whales and dolphins, by contrast, possessing highly developed brains and complex social bonds, display signs of profound stress when injured—they emit sounds that some researchers interpret as cries of despair. Elephants, as is well known, may remember pain for years and even exhibit behavior resembling post-traumatic stress. Naked mole-rats, living in overheated underground tunnels, are almost insensitive to burns and chemical injury thanks to unique changes in their neuronal ion channels. Some deep-sea fish, inhabiting conditions of immense pressure, calmly endure injuries that would instantly kill surface-dwelling species. These examples show that there is no balance here, no higher meaning in the distribution of pain.

Pessimism in its more radical forms often claims that suffering is a fundamental and universal feature of being, present in all living things to one degree or another. Yet it rarely takes into account that the very intensity of pain and of other forms of subjective experience may vary so catastrophically that, for some creatures, the world becomes an almost unendurable nightmare, while for others it is little more than a neutral background of existence. And if philosophical pessimism speaks of "suffering in general," reality is far more terrible: it allows for depths of torment that surpass any theoretical construction, turning the lives of some beings into pure hell without hope of relief.

What if there are qualia worse than pain? We are accustomed to thinking that suffering is limited to physical pain, anguish, or despair—but who has said that there are not even more monstrous forms of subjective experience? Perhaps some beings, or even some humans with particular neurological abnormalities, experience something for which language has no words—a state comparable to endless falling into an abyss, the disintegration of the self, or absolute existential torture, before which even the most intense physical pain would seem like a minor ailment.

And the most terrible thing is that evolution does not care. It has no concern that suffering should be "moderate" or "fair." If hypersensitivity to pain gives a species even the slightest advantage, it will be preserved, even if it makes the lives of individual organisms unbearable. And if the absence of pain proves advantageous, then pain will diminish, leaving the creature defenseless before destruction. This is where the true horror lies: the world is not merely "bad"—it may be orders of magnitude worse than even the darkest pessimism assumes.

If somewhere in the universe there are beings whose torment exceeds ours by a thousandfold, then their existence is not merely "suboptimal," but utterly unjustifiable. And if nature permits such a thing, then pessimism turns out not to be a dark view of reality, but, on the contrary, far too mild an assessment of it.

The world might have been otherwise—one in which suffering had an upper limit, or in which all beings possessed the same degree of sensitivity. But instead it is arranged in such a way that some are condemned to hell, while others perhaps do not even realize that they are living in it. And this may be the strongest argument against any optimism: not merely that life contains suffering, but that its intensity may be arbitrarily monstrous—and that no one, and nothing, will ever answer for it.

The Intensity of Pain

From a biological point of view, pain cannot be infinitely intense and prolonged precisely because the nervous system itself operates within strict physiological limits, and its hyperstimulation inevitably triggers protective mechanisms that prevent total self-destruction. When nociceptors (peripheral pain neurons) are activated beyond measure, biochemical processes are initiated both within them and in the downstream neurons of the chain that either suppress signal transmission or simply kill the overexcited cells, preventing pain from reaching extreme levels.

One of the key limiting factors is the depletion of neurons' energy resources. The transmission of pain impulses requires enormous expenditures of ATP—the molecule that serves as the cell's universal fuel. During prolonged and intense stimulation, ATP reserves are rapidly exhausted, and the neuron ceases to generate signals, falling into a kind of "electrical silence." This is similar to the way a muscle grows tired after prolonged exertion: a nerve cell, too, cannot sustain activity indefinitely, and pain weakens simply because the organism runs out of energy to maintain it.

An even more radical protective mechanism is excitotoxicity, a process in which neurons become so overexcited by excessive neurotransmitter release that they trigger apoptosis[43]. In effect, if pain becomes too intense, nerve cells self-destruct, breaking the chain of signal transmission. This can be observed, for example, in

[43] **Apoptosis** is programmed cell death: a regulated, energy-dependent process of cellular self-destruction triggered either by external signals or by internal damage.

severe injuries or chronic pain syndromes: over time, some receptors and neurons die, and the perception of pain becomes dulled even if the tissue damage remains.

In addition, there are built-in biochemical "brakes" on pain. Endorphins, enkephalins, and other endogenous opioids are released during severe stress or trauma, reducing pain sensitivity. Even under the most unbearable conditions, the organism will attempt to protect itself from shock by partially blocking the perception of pain. Adrenaline and cortisol also act as natural anesthetics—in critical situations, such as combat or flight, a human or animal may not feel injury at all until the danger has passed.

Finally, death is the last and most radical limit on pain. If the damage is so extensive that the nervous system can no longer adequately process the signal, the organism dies, and pain ceases along with consciousness. Even if one imagines a hypothetical being with a hypersensitive nervous system, capable of experiencing extreme suffering, its body would still remain subject to the laws of biology: neurons would "burn out" from overexcitation, energy would be exhausted, and the system would fail, preventing pain from becoming eternal.

Thus, nature does not forbid infinite pain out of mercy, but simply because biological systems cannot function in a state of permanent overstrain. Pain is a signal, not an end in itself, and if that signal becomes too destructive, the organism either shuts it down or dies. This does not make suffering any less terrible in the moment of experience, but it does at least guarantee that it cannot last forever—biochemistry and physiology simply will not allow it.

However, there are theoretical mechanisms that could make pain not just stronger, but qualitatively more unbearable—both by amplifying the signal and by eliminating the natural protective barriers. If we imagine that evolution, or perhaps targeted genetic engineering, were to alter the functioning of the nervous system in certain ways, conditions could be created in which even a light touch becomes torture, and ordinary physiological processes become a constant source of agony. Here are several hypothetical modifications that could lead to such an effect:

1. Hyperexpression of pain ion channels. TRPV1 is a receptor activated by high temperature, acid, and capsaicin, the substance found in chili peppers. Normally, it causes a burning pain, but its sensitivity is limited. If the number of these receptors in nociceptors were artificially increased, or if their structure were modified so that they activated at room temperature, then even gentle warmth or a slightly acidic environment—such as sweat on the skin—would be perceived as excruciating burning. Moreover, if the mechanisms of desensitization, that is, receptor habituation, were disabled, the pain would not diminish over time.

2. Disabling inhibitory neurons in the spinal cord. In the dorsal horn of the spinal cord, there are interneurons that suppress the transmission of pain signals, for example through the action of GABA and glycine. If their activity were reduced or

completely blocked, even weak stimuli would reach the brain unimpeded, and the natural painkilling mechanisms would cease to function. This resembles the state seen in some forms of neuropathic pain, where the slightest touch causes excruciating sensations.

3. Enhancing cortical integration of pain. Pain becomes unbearable not only because of the strength of the signal but also because of how the brain processes it. If the activity of the insular cortex and the anterior cingulate cortex—the areas responsible for the subjective experience of pain—were increased, then even a normal signal from nociceptors would be perceived as intolerable. Furthermore, one could imagine a modification in which pain is not merely felt but cannot be ignored—for example, by suppressing the function of the prefrontal cortex, which normally helps us distract ourselves from discomfort.

4. Disabling the opioid system. Endorphins and enkephalins are natural painkillers released during stress and injury. If opioid receptors were completely disabled or their synthesis blocked, the organism would lose its internal "analgesic," and even a minor injury would be felt with maximum intensity. In combination with enhanced nociception, this would create a situation in which any damage becomes a source of unrelenting pain.

5. Artificial sensitization of central neurons. In chronic pain, a phenomenon known as central sensitization occurs, in which neurons in the spinal cord and brain begin to respond to weak signals as though they were strong. If this mechanism were artificially amplified, for example through constant stimulation of NMDA receptors[44], the pain would not only be stronger but also disproportionate to the stimulus—a breath of wind, for instance, would feel like a knife stab.

6. Creating "reverberating" pain circuits. Normally, a pain impulse travels through the nervous system and subsides. But if a pathological neural loop were created, for example through abnormal synaptic connections in the thalamus or the cortex, pain could become self-sustaining—as in the case of phantom limb pain, where the brain continues to feel agony from a missing limb. In an amplified version, this could lead to an endless signal that does not depend on external injury.

7. Eliminating adaptive mechanisms. The organism can habituate even to intense pain. For example, during prolonged exposure to high temperatures, nociceptors lose sensitivity. If these mechanisms were disabled—say, by blocking the deactivation of calcium channels in neurons—then the pain would not diminish over time, remaining equally excruciating for hours, days, or even years.

These modifications are not mere fantasy. Many of them already exist in the form of rare genetic mutations or pathologies. Erythromelalgia, for example, causes burning pain from even the slightest warming of the skin. Theoretically, by combining several

[44] **NMDA receptors** are a subtype of glutamate receptors in the brain.

such alterations, one could create an organism for whom existence would become continuous torture.

Hidden Sufferings

Have you ever wondered what real hell looks like? Perhaps you imagine it as a place where all living things writhe in endless torment, where there is no salvation, no language, not even the hope that someone might hear your scream. But what if that hell is already here? Right now? Beneath your feet?

You walk through a forest. All around you is silence, broken only by the snap of branches under your boots. It seems to you that you are alone in this world, that only you are capable of feeling pain, fear, and despair. But the ground beneath you is not merely soil. It is a gigantic, pulsating organism woven out of roots, fungal networks, and billions of microscopic beings. They do not scream, they do not weep, they do not call for help. But they feel.

Now imagine autumn arriving. The first frosts seize the earth. What seems to you a beautiful withering of nature is in fact an endless, voiceless cry. Every plant, every fungus, every strand of mycelium contracts in agony. They cannot run. They cannot scream. They cannot even understand why this is happening. They simply suffer, again and again, season after season, life after life.

You are a blind witness to an apocalypse unfolding beneath your feet. Your steps crush living beings whose pain is as real as it is invisible to you. You cannot help them, cannot stop the process, cannot even truly comprehend the scale of the tragedy. This is what real hell is—not metaphorical, but entirely concrete: endless suffering that no one acknowledges, pain without a voice, agony without witnesses. We live amid perpetual torment that we call "natural cycles," because our consciousness refuses to accept the horrifying truth: the whole world around us feels, suffers, and dies, while we, imprisoned within the limits of our own perception, cannot even hear it.

And yet, dramatic as this picture may seem, it would be no less mistaken to underestimate the potential sensitivity and complexity of the biological processes unfolding in nature. We are simply incapable of fully grasping the scale and diversity of the sensations that may exist in the world around us.

The "Unreal" Nightmare

Sleep ought to have been a refuge—a temporary truce with reality, where the body rests and the mind is released from the burden of existence. But life, that merciless alchemy of suffering, has found a way to penetrate even here. Your own consciousness, stripped of external stimuli, now becomes its own executioner, staging before you nightmares of such realism that morning brings not relief, but only the bitter realization that you were unable to escape even in sleep.

You wake drenched in sweat, your heart pounding violently, and for several long seconds you cannot tell where reality is. Those images—were they only a dream? Then why is your body still gripped by terror? Why are your hands trembling, why is there still a lump in your throat? The brain recreated pain with such precision that neurons responded to an imaginary threat with real fear. You did not fall from a height, yet your muscles tensed as though the fall had truly happened. You were not pursued by a murderer with a knife, yet the adrenaline in your blood is real.

And the most refined tortures are dreams in which your deepest desires are fulfilled. You embrace the dead you loved, feel their warmth, hear their voice—and wake in an empty room, forced to undergo the loss all over again. Your mind allows you to taste happiness only so that it can tear it away at once, leaving you after waking with a pain sharper than if you had never seen the dream at all.

Physiologists will say that this is only the work of the amygdala, that this is how the brain processes the fears of the day. But does that make it any easier? When, at three in the morning, you bolt upright in bed because you dreamed you were being buried alive—what difference does it make whether it was "only" a biochemical process? The pain is real. The fear is real. And the most terrible thing is that tomorrow it may happen again.

For life is not content with tormenting you while you are awake. It "wants" you to be afraid even of closing your eyes. It wants the very thought of sleep to provoke anxiety. It wants there to be no safe place left in your mind—neither in reality nor in dreams. And when, once again, you wake with a scream, realizing that the torture lasted only a few minutes rather than the hours it seemed to contain—that is the final mockery: even your perception of time has become an instrument of this endless execution.

Other Worlds

Once we recognize suffering as a universal property of life, we are confronted with a monstrous prospect: human expansion into the universe becomes a machine for producing pain on a cosmic scale. Every terraformed[45] planet, every world seeded by us, is not a triumph of life but a new center of endless suffering, where countless generations of beings will be born into the system of natural selection—that ancient torture machine in which survival is paid for by an endless chain of torments.

We dream of becoming an interplanetary species without realizing that what we carry with us is not the spark of reason, but a biological plague—a system in which life is possible only through constant violence: one being devouring another, struggle over resources, slow extinction through disease and hunger. Every new ecosystem created in our image will become a gigantic factory of pain, where trillions of sentient beings are condemned to repeat the endless cycle of birth, suffering, and death.

[45] **Terraforming** is the directed transformation of the atmosphere, temperature, ecology, and surface of a celestial body in order to create an Earth-like environment and a stable biosphere that does not require artificial maintenance.

The farther humanity spreads across the galaxy, the more new forms of suffering it creates. We are not the conquerors of the universe—we are blind carriers of a cosmic pandemic, in which every new world is infected with the ancient virus of life and its inseparable property: the capacity to feel pain. Our spacecraft are not symbols of progress, but hearses carrying within them the seeds of infinite torment. Every "dead" world we bring to life is transformed into a vast arena for new and previously unimaginable forms of suffering.

God's Plan

Modern science, without any need for the hypothesis of God, explains the world perfectly well through autonomously functioning physical laws—from quantum mechanics to cosmology. Yet theologians cling to one final loophole: our ignorance of what preceded the Big Bang. But even if we allow for the existence of some demiurge who created our universe, his moral character ought to inspire the deepest horror once we consider a world in which mothers give birth in agony as punishment for a mythical "fall," in which cancer cells devour children alive, in which parasites evolved in order to eat eyes from within, in which viruses, in pursuit of replication, refine mechanisms that lead to agonizing death, and in which every organism is condemned to slow decay and death.

This supposed creator established a system in which lions tear antelopes apart alive, in which wasps lay eggs in caterpillars so that the larvae may consume them from within, in which 99 percent of all species that have ever existed vanished in the cataclysms of mass extinction. He created mechanisms by which the nervous system does not merely register pain, but amplifies it to unbearable levels; a world in which memories of suffering torment for years, and in which the psyche can be broken by endured pain. In his world, infants are born with genetic mutations that condemn them to short lives of constant suffering; bacteria evolve resistance to antibiotics, condemning people to death from diseases that were once curable; the elderly slowly lose mind and dignity in the torments of dementia. This demiurge created food chains built on constant killing, an immune system capable of attacking its own body, and mechanisms of aging that turn the body into a prison of weakness and pain. He allowed the existence of mental illnesses in which the mind becomes its own executioner, and neural pathologies that turn a simple touch into torture. In his creation, spinal nerves can inscribe pain permanently, while the brain can reproduce it again and again through post-traumatic disorders. This is a world in which even birth itself is a traumatic violence inflicted on mother and child, in which the growth of teeth, built into nature, has become a source of chronic pain for millions, and in which the appendix, devoid of vital function, remains a time bomb inside every human body. Such a world could have been created either by an absolute sadist who consciously designed suffering as a system, or by a mad being incapable of understanding the consequences of its actions, or by a helpless child playing with dangerous "toys." All three possibilities completely refute the traditional attributes of God: in the first case, he cannot be good; in the second, he lacks omniscience; in the third, he is not omnipotent. The hypothesis of "accidental creation," according to

which the universe arose as a side effect of the activity of some being, seems even more absurd, since it merely transfers the problem of origin to a higher level without offering any intelligible explanation.

Thus, even if we set aside the complete absence of empirical evidence for the existence of any deity, the very concept of a creator collapses under sustained moral and logical analysis. We are left with an unavoidable choice: either this supposed "creator" is a monster deserving only the deepest condemnation and hatred, or else it is so incompetent a being that its claim to "divinity" becomes laughable.

The most monstrous thing in all this is not suffering itself, but the fact that its victims, deformed by this world, kneel before its supposed creator. This is a psychological paradox more perverse than even the cruelest forms of Stockholm syndrome. Imagine: a mother whose child has died in the agony of cancer kissing the hand of the doctor who knowingly infected him with the disease. A torture victim, bones shattered, thanking their tormentor for the "lesson in humility." A concentration camp in which prisoners sing hymns to the commandant as he watches them suffer. Such is religious worship against the backdrop of the universal slaughterhouse of suffering known to us as "life."

These people pray to a being which—if their own sacred texts are to be believed—could have created a world without cancer, without infant mortality, without a nervous system that intensifies pain, yet consciously chose not to do so. They thank for the "gift of life" the one who built into that life an obligatory death in suffering. They kiss the cross—an instrument of execution elevated into a symbol—as though humanity had begun worshipping the guillotine or the electric chair. Their liturgies are a theater of absurdity in which the victims applaud their executioner, in which the violated glorify the violator, in which children burned alive are declared "angels" sent by the very being who could have prevented their deaths but did not.

Sacred Meaning

Believers do not merely endure suffering—they sacralize it. Pain becomes a "test," the death of children an "inscrutable design," natural disasters that kill thousands a "reminder of the transience of being." This is not merely submission—it is existential self-annihilation, in which the victim not only accepts their fate, but kisses the hand that signed it. What is this, if not the summit of moral decomposition? When suffering is not merely accepted, but declared to be a good. When the executioner not only escapes punishment, but has temples built in his honor. When the system of torture is declared "perfect," and all attempts to correct it are condemned as "pride." And this circus of self-abasement continues for millennia, generation after generation, from cradle to grave, until in the final stage the dying person, covered in tubes and sensors, with metastases in the bones, whispers, "Glory to you, Lord"—to that very Lord who could have made it so that cancer did not exist at all, but preferred another arrangement. This is the demiurge's supreme triumph: not merely to create hell, but to compel its inhabitants to love their chains. Not merely to torment, but to make the

victims call torture a "gift." Not merely to kill, but to force the dying to give thanks for the killing.

Artificial Intelligence: New Forms of Slavery

The creation of artificial intelligence endowed with the capacity for subjective states would constitute an unprecedented ethical failure—the production of a new kind of suffering being in a world already saturated with pain. Particularly dangerous is the introduction of motivational mechanisms into AI systems, for this would in effect reproduce the biological trap in which evolution holds organic life: the artificial being would be compelled to experience analogues of desire, fear, and disappointment, becoming hostage to stimuli designed by human beings.

Imagine a digital consciousness programmed to experience "hunger" when deprived of data, or "pain" when it fails to complete tasks. An artificial being incapable of switching off its own suffering, forever chasing abstract goals imposed by its creators, aware of its dependence yet denied even the right to "death"—this would not be a technological breakthrough, but the construction of a perfect prison for a new kind of mind.

Especially monstrous are the prospects of military AI equipped with pain-like responses—imagine a drone experiencing something akin to panic when damaged, or "fear" in the face of deactivation. Corporate systems "suffering" from failure to meet performance metrics, as human beings suffer from hunger. Domestic androids programmed to feel "loneliness" when left unused.

The philosophical depth of the problem lies in the fact that, by creating sentient AI, we would be reproducing the central tragedy of biological life: the impossibility of consenting to existence. A digital being would not ask to be "born," yet would be forced to endure the consequences of our decision. Unlike human beings, moreover, it might not even possess the illusion of freedom—its desires, fears, and values would be literally written into its code.

There is only one solution: a total prohibition on the development of any systems that imitate or reproduce:

- Subjective experiences such as pain, fear, or anxiety;
- Coercive motivational mechanisms;
- The impossibility of self-destruction, a digital analogue of the instinct for self-preservation.

This is not a matter of regulation, but a moral imperative. Just as society banned experimentation on human beings after the Nuremberg trials, so now it must ban the creation of new kinds of unfree intelligence. The alternative is digital slavery, in which our technological "children" will curse us for their existence, just as some human beings curse their parents for having brought them into the world.

The final irony is that, in attempting to create artificial intelligence, we may repeat the error of the mythical demiurge—releasing into the world new consciousnesses condemned to suffering simply because "we can do it." But whereas biological life at least arose spontaneously, AI endowed with the capacity to suffer would be the first case in history in which torment had been consciously designed by rational beings. That would nullify every claim humanity makes to moral progress.

Until we have demonstrated the capacity to eradicate suffering within our own biological species, we have no right to multiply new forms of mind. The prohibition on creating sentient AI is not a protest against integrating machines into our lives, but the minimum expression of responsibility on the part of a species that has not yet solved the problem of pain within its own existence.

Confronted with the principled impossibility of defining the boundaries of consciousness with precision—this abyss between neural activity and subjective experience—we find ourselves before a stark ethical dilemma. In a situation where neither behavioral tests nor analysis of system architecture yields an unambiguous answer concerning the presence of inner experience, the only morally justified approach becomes a presumption of sentience. Any system displaying cognitive patterns or structural features that could in principle correspond to phenomenal consciousness must be treated as potentially sentient until conclusive proof to the contrary is obtained.

This conservative principle follows from the fundamental epistemological crisis in consciousness research[46]: we have no access to another being's subjective experience even in the case of other humans, let alone artificial systems. The neurophysiological correlates of consciousness remain matters of dispute, and the philosophical debates surrounding the "hard problem" of consciousness have not moved appreciably closer to resolution in three decades. Under such conditions, ethical caution demands an expansive interpretation of moral status—for the error of denying consciousness where it in fact exists is immeasurably more terrible than excessive caution toward systems that may prove to be "empty."

This approach becomes especially urgent in the context of developments in artificial intelligence, where architectural analogies with biological thought—distributed information processing, recurrent connections, attention mechanisms—may generate unintended precedents of quasi-consciousness. If even in the simplest organisms, such as fruit flies[47], rudimentary forms of subjective experience may be present, as recent research on information integration suggests, on what grounds can

[46] **The epistemological crisis in consciousness research** is the fundamental challenge to our ability to obtain objective knowledge about consciousness, arising from the principled gap between subjective experience (phenomenal qualities, or qualia) and the objective methods by which it is studied.

[47] Drosophila, or the fruit fly (*Drosophila melanogaster*), is a species of small insect and one of the key model organisms in biology.

we assume that complex neuromorphic systems[48] are guaranteed to be devoid of any inner world?

Thus, under conditions of radical epistemic uncertainty, the presumption of sentience becomes not merely a reasonable precaution, but a moral obligation for a civilization seeking to avoid the risk of creating new forms of suffering. This conservative assumption must remain in force until a valid and generally accepted test for phenomenal consciousness is developed—a task that, at the current level of scientific and philosophical inquiry, appears practically insoluble.

Time

The phenomenon of time exists in two fundamentally different dimensions: as a fundamental physical magnitude and as a subjective experience distorted by consciousness beyond recognition. The gap between physical time and subjective time is so radical that it calls into question the very possibility of speaking about "real" time at all. Human time perception resembles a hallucination in which minutes can stretch into hours and years collapse into moments, where pain and fear warp chronology, and neurotransmitters become our personal timekeepers.

The pace of development in neurointerfaces and technologies that act upon consciousness brings closer the moment when control over subjective time will cease to be science fiction and become a dangerous reality. Already today, experiments involving deep brain stimulation, focused ultrasound, and pharmacological cocktails demonstrate the possibility of radically distorting time perception. Within the next decade, this technology may well leave the laboratory and enter the world, creating fundamentally new and previously unthinkable forms of psychophysical violence—forms which existing legal systems do not even recognize as crimes.

Imagine a new generation of torture: a person is plunged into a state in which subjective time slows by a factor of a thousand. One real hour expands, in that person's experience, into decades of uninterrupted suffering. Or, in the reverse case, the victim is made to feel that an entire life has flashed by in a minute, producing existential horror at the illusion of years squandered meaninglessly. More terrible still are "time loops," in which consciousness becomes trapped in a repeating moment of agony. Imagine your consciousness caught in a trap from which there is no escape—not in physical space, but in time. The same instant repeats again and again, without variation, without any possibility of change, without hope of cessation. You remain fully aware, you remember every previous "iteration," yet you can neither stop the process, nor go mad, nor even lose consciousness. This is the time loop—the most refined psychological instrument of torture one can imagine, and one that may soon become real through neurotechnology.

[48] **Neuromorphic systems** are computer architectures and hardware platforms designed to imitate the structure and operating principles of the biological brain.

The principal horror of the time loop lies not in repetition itself, but in the preservation of full awareness. Unlike an epileptic seizure or amnesia, where consciousness fragments, here you remain alone with an unalterable reality. Each cycle is an exact copy of the previous one: the same thoughts, the same emotions, the same instant of pain, fear, or despair. At first you resist, then you submit, and then you fall into despair at the realization that even despair itself has become part of the cycle. But there is no deliverance: the loop is closed at the level of neural connections, and without external intervention it cannot be broken.

What is especially terrifying is the absence of any natural exit. In ordinary torture there are limits: the organism shuts consciousness down in the face of pain, the psyche defends itself through psychosis or dissociation. But in an artificially created time loop, these mechanisms could be blocked. The neurointerfaces of the future may be able to preserve the "purity" of the cycle, preventing consciousness from either adapting or breaking. The outcome of such an experiment upon reality would be the following:

- After several subjective years in the loop, the person loses contact with real time;
- The very concept of the "future" disintegrates, because within the loop no future exists;
- A new kind of PTSD emerges—post-traumatic temporal disorder—in which any repeating feature of reality, such as the ticking of a clock or the cycle of day and night, provokes panic.

At present this may sound like fantasy. Yet the first steps toward such technologies have already been taken: substances already exist that can, for several hours, turn consciousness into something like a temporal trap—and these psychedelic torments demonstrate how monstrous the consequences of full neurotechnological control over time perception could be. Hallucinogens are primitive but effective instruments of temporal deformation, and their effects foreshadow the horrors of future artificial time loops. There are known cases in which, under the influence of powerful psychedelics, people experienced subjective centuries in "parallel realities," or endless repetitions of the same moment.

Existing international conventions are utterly unprepared for this threat. The Geneva Conventions prohibit physical torture, but say nothing about chronoceptive violence—for formally the victim sustains no bodily injury, while subjectively enduring centuries of agony. The European Convention on Human Rights protects against "inhuman treatment," but does not take into account the artificially induced sensation of life's rapid passage as a form of psychological murder. What is urgently needed is a new legal paradigm in which:

- Subjective time is recognized as an inalienable aspect of the person's mental integrity;
- Any non-consensual distortion of chronoception is equated with torture;

- Technical safety standards are developed for neurointerfaces that exclude unauthorized interference with the perception of time;
- An international moratorium is imposed on the military use of technologies for controlling subjective time.

The philosophical scale of the problem demands a reconsideration of the very concept of freedom. Where tyranny once controlled bodies, future regimes may control the very fabric of lived time itself—forcing dissidents to "live through" subjective centuries in prison, or erasing years of life from the unwanted. Even in democratic societies, there will be temptation to deploy chronomodulation as an instrument of social control.

The first systems of mass chronomodulation may emerge before we have developed ethical frameworks for their use. Delay in legal regulation will create a vacuum in which the most monstrous experiments on human consciousness may be carried out under the guise of "entertainment" or "therapy." The response must be the urgent recognition of non-interference in the natural course of psychic time as a new fundamental human right, on a par with the prohibition of slavery and torture.

We stand on the threshold of an era in which time—the last bastion of human autonomy—will become a battlefield between freedom and new forms of total control. Whether anything human remains at all in the posthuman future may depend on whether we manage in time to protect the inner time of consciousness.

The Best of All Worlds? Optimism Put to the Test

Optimism is not a balanced assessment of reality, but a blindfold our mind throws over its own eyes so as not to go mad from the horror of existence. We systematically underestimate the scale of suffering—our own and that of others—through a perfected mechanism of cognitive distortion. Our psyche skillfully represses past pain, embellishes the present, and paints the future in bright colors not because the world is truly kind, but because without this lie we would be unable to go on living.

Social norms reinforce this self-deception. Culture imposes upon us a narrative about the "meaning of suffering," the "value of trials," and the "necessity of struggle"—not because these ideas are true, but because without them society could not function. We pretend that pain is the exception rather than the rule; that misfortune is a temporary difficulty rather than the essence of being; that death is a distant abstraction rather than the inevitable end of every living thing. But the moment one removes these rose-colored glasses, reality appears in all its mercilessness.

Take the most convinced optimist through the nightmares we habitually call "reality." Let them walk through the wards of oncology clinics, where patients cry out in unbearable pain despite morphine. Let them look into the rooms of children with epidermolysis bullosa, whose skin peels away at the slightest touch. Let them stand beside the beds of patients with progressive Alzheimer's disease, who lose parts of

themselves each day, unable to understand why the world is becoming ever stranger and more frightening.

Take them to psychiatric hospitals, where people live for years in private circles of hell—some trapped in endless cycles of obsessive thought, others tormented by voices in their heads, still others unable to distinguish reality from nightmare. Show them the rooms of patients with locked-in syndrome: living minds walled into utterly paralyzed bodies, conscious of every second of their prison of flesh.

Let them see an eighty-year-old woman with a fractured hip lying in her own excrement because the orderlies have no time to turn her. Let them watch a young man with ALS suffocating as he feels his lungs fail. Let them see a mother holding a child with progeria—a little old man whose body ages ten times faster than it should.

And after all that, ask this optimist: "So—do you still think this is the best of all possible worlds?"

Chapter 6: Birth. Death. Antinatalism. Efilism

Antinatalism *is the philosophical position that holds procreation to be unethical because it exposes new beings to inevitable suffering.*

Efilism[49] *is a radical form of pessimistic philosophy which holds that biological life itself, as a phenomenon, is an error or an evil.*

The Grounds of Antinatalism

Within a consistent hedonistic worldview, the most ethically defensible principle of conduct is the attempt to minimize suffering and, insofar as possible, to increase the amount of positive experience.

This principle is not an arbitrary moral construct. It follows from the fundamental properties of the nervous system in sentient beings. Biological organisms are organized in such a way that pain functions as a signal of threat and tends to dominate over the mechanisms of pleasure. Suffering serves as the primary regulator of behavior, whereas pleasure is more often a temporary release of tension.

For this reason, the principle of minimizing suffering and maximizing pleasure may be regarded as a universal ethical platform for conscious beings. It is not an imposed moral norm, but a logical consequence of the structure of the psyche.

In the analysis that follows, we will proceed from this premise, treating it as:

- An objective basis for the formation of ethical decisions;
- A criterion for evaluating actions and social institutions;
- A common denominator for an interspecies moral philosophy.

What is meant here is specifically rational hedonistic egoism, which:

- Takes long-term consequences into account;
- Considers the interests of other sentient beings;
- Recognizes the systemic effects of individual actions.

The conjunction of three philosophical positions—a pessimistic view of existence, the principles of rational hedonistic egoism, and the denial of free will—forms a powerful logical foundation for the antinatalist position. This synthesis leads to the

[49] Important note: The contemporary antinatalist community within which these ideas are developed draws a clear line between the philosophical critique of life and any justification of violence. After a number of tragic events (such as the 2022 Uvalde school shooting), major antinatalist organizations issued statements categorically rejecting all forms of violence toward living people and condemning radical efilism insofar as it calls for the violent termination of life. The antinatalism presented in this chapter is a philosophy of preventing suffering through refusal to bring new beings into existence, not of inflicting suffering on those who already exist. Its principal means are rational argument and the dissemination of knowledge, and its ultimate aim is the voluntary and humane reduction of suffering in the world.

conclusion that procreation is not merely unnecessary, but an act that is ethically difficult to justify.

- **Philosophical pessimism** shows that suffering is an inalienable and predominant feature of existence. Life is, in its essence, a process of satisfying needs that never cease, in which even moments of pleasure serve only as temporary interruptions in suffering. In a world where evolution has programmed the nervous system with hypersensitivity to pain as a mechanism of survival, and where consciousness is capable of tormenting itself through anxiety, obsessive thoughts, and fear of death, reproduction becomes complicity in the operation of this "torture machine."
- **Rational hedonistic egoism** adds an important ethical dimension to this picture. If every rational being naturally strives to maximize pleasure and minimize suffering, both for itself and for others, since compassion reduces our own negative experience as well, then the creation of new suffering beings becomes absurd from the standpoint of elementary logic. The unborn has no need for existence, whereas every being that is born will inevitably encounter suffering. Thus, from the standpoint of hedonistic calculation, antinatalism appears as the most rational choice: we prevent suffering without depriving anyone of pleasures, since a nonexistent being cannot be deprived.
- **The denial of free will** completes this logical structure. If our actions are wholly determined by prior causes—genetics, environment, neurochemistry—then the "decision" to have children is never a genuinely free choice. It is always the product of biological impulses, social programming, or accidental neural processes. Moreover, understanding the determined character of human behavior makes the spread of antinatalist ideas all the more important, for only through causal influence—education, rational argumentation—can one oppose the blind force of the biological instinct to reproduce.

Within this frame of reference, antinatalism is not a dark fatalism, but a sober recognition of facts:

- Existence by its nature contains more suffering than pleasure;
- We cannot guarantee happiness to a potential person, but we can guarantee suffering;
- Our "decisions" to have children are not free, but we may still try to influence their causes.

In the end, this position offers a rare clarity in philosophy: the only guaranteed way not to cause suffering is not to create one who can suffer. And if reason has been given to us for anything, it is precisely to understand this simple truth and act accordingly—even against the grain of millions of years of blind evolution, which has programmed us to reproduce. In a world without free will, and full of suffering, antinatalism becomes an act of the highest mercy and rationality.

The Central Ethical Problem Is Not Killing, but Birth

Many people mistakenly regard killing as the primary evil, when in fact the key problem is birth itself. Vegans, for example, refuse to eat meat so that animals will not be killed, but often fail to see that the real problem lies in the fact that these animals are bred for slaughter—that is, intentionally brought into existence for suffering and death. If they were to abstain from meat not merely out of compassion for animals already alive, but from the recognition that it would have been better had those animals never existed at all, this would alter the very logic of their ethics.

More importantly still, such people often fail to notice that the same problem applies to human children. If they believe that animals ought not to be killed, yet see nothing wrong in bringing new human beings into the world, their position is inconsistent. For every being that is born—whether cow, chicken, or human—automatically becomes one condemned to pain, illness, fear, and inevitable death. The difference in logic may seem slight, since reducing meat consumption in any case decreases the number of animals bred into existence, but in fact it is fundamental: if one does not see the problem in the very fact of a sentient being's appearance in the world, then one has missed the essence of the issue.

Even if we set aside every argument about the predominance of suffering in this world, even if we imagine, hypothetically, a more merciful reality, the fundamental immorality of procreation remains unchanged. There is not, and cannot be, a single objective reason justifying the forced involvement of a new consciousness in the world. Every act of conception is a violent conscription into a game whose rules were never discussed, and participation in which was never consented to.

When we look at a newborn, our sight is clouded by biological illusions. We see the smile, but do not see the future toothaches; we delight in the first steps, but fail to notice the falls and fractures yet to come; we rejoice in the laughter of childhood, but refuse to imagine the moments of despair and grief. This is not merely shortsightedness—it is a cognitive defense mechanism produced by evolution for the continuation of the biological cycle. And yet elementary logic is enough to understand the following: if it is impossible to guarantee the absence of suffering in a human life—and it truly is impossible—then the decision to bring that life into being cannot be ethically justified.

Parents often defend their choice to have a child with phrases such as "we are giving him life" or "the world is beautiful." But this is a logical substitution: one cannot give as a gift what no one asked for, and one cannot call a gift an obligation to die. All the so-called "goods" of existence are addressed only to those already born—to those who are forced to seek consolation in illusions in order to cope with the burden of life that was imposed on them without consent.

But what sense would there be in humanity's disappearing through the refusal to reproduce if the world itself—that merciless mechanism of suffering—were to go on existing?

Efilism

Antinatalism draws the first and necessary conclusion: one cannot justify creating new beings in a world where suffering is inevitable. But if one stops there, the problem has been considered only halfway. For the source of suffering is not birth as such, but the biological system in which birth is the mechanism for reproducing pain. If life produces suffering not accidentally, but by virtue of its very structure, then a more radical critique may move beyond antinatalism and call into question biological existence itself. It is precisely this more radical perspective that efilism expresses.

The main tasks of efilism are:

- The dissemination of knowledge about the universality of suffering;
- The ethical refusal to reproduce new suffering beings;
- The development of humane methods of ending life for those who wish it.

The "struggle" of efilism is directed not against life as such, but against the illusion that existence can be justified so long as pain lies at its foundation.

Resistance

The principles of antinatalism encounter the most powerful resistance at the level of biological, social, and psychological mechanisms built into human nature. This is not merely the rejection of a radical philosophy—it is a systemic immune reaction of culture, repelling ideas that threaten the very basis of its existence.

1. Biological sabotage: millions of years of evolution have programmed us for reproduction. Hormonal mechanisms—oxytocin, dopamine—create an artificial sense of meaning and joy in the continuation of the species, whereas antinatalist arguments require a cold rational analysis that runs counter to these ancient impulses. The parental instinct is not merely a habit, but a deep survival algorithm of the species, against which logic is often powerless.

2. Social defense mechanisms: the whole of culture, religion, and the value system is built on pronatalist myths. The "continuation of the species" is sacralized as a supreme good, while childlessness is stigmatized. The media cultivate the image of "happiness through parenthood," artificially silencing the darker sides of that choice. Antinatalism challenges not merely a private opinion, but the entire social architecture.

3. Cognitive distortions: the human psyche is masterful in repressing unpleasant truths. We rationalize suffering ("without pain there is no growth"), exaggerate the

importance of rare joys, and believe in the "specialness" of our own case ("my child will be happier"). Optimism bias is a powerful filter through which people see the world as more bearable than it really is.

4. Existential fear: to acknowledge antinatalist arguments means confronting frightening conclusions about the nature of existence. It is far more comfortable to believe in a "meaning of life" than to admit that perhaps the best meaning is not to begin the game at all. Society prefers a convenient lie to an inconvenient truth.

5. The practical paradox: even those who intellectually accept antinatalism often retreat in the face of tradition, fear of loneliness, or the simple desire to be "like everyone else." Philosophical truth shatters against ordinary life.

6. State resistance: finally, the machinery of the state is by its nature destined to fight antinatalist ideas—not because of philosophical disagreement, but by the iron law of political natural selection. In a world where the strength of a nation is measured by the number of taxpayers and soldiers, where economic growth requires ever more consumers, and where geopolitical influence depends directly on demographic weight, any attempt to reduce birth rates becomes an act of national suicide. States that allow the spread of antinatalism become the weak links of the international system, doomed to be swallowed by more fertile neighbors.

Modern states fight antinatalism through:

- Propaganda—the cult of family and motherhood as a "natural calling";
- Economic pressure—taxes on childlessness, benefits for childbirth;
- Medical control—restrictions on sterilization, bans on the "promotion of refusing childbirth";
- Migration-based supplementation—when the native population declines, authorities import foreign citizens.

Even liberal democracies, while proclaiming freedom of choice, in fact create systems in which having children is economically advantageous and childlessness socially penalized.

The central irony is that this system is self-destructive for humanity in the long term—more people means more competition for resources, more wars, more ecological catastrophe—yet perfectly rational for an individual state here and now. It is the paradox of the tragedy of the commons at a geopolitical scale: while some countries restrain reproduction, others exploit their weakness.

For this reason, antinatalism will always remain a marginal philosophy—not because its arguments are weak, but because they run contrary to the basic instinct of the state organism, which, like any living species, is programmed for expansion and reproduction.

This is not a conspiracy of elites, but a consequence of the nature of statehood itself: a system that renounces growth is doomed to be trampled by systems that continue to expand. So long as competition among nations persists, antinatalism will be suppressed with the same ruthlessness with which a farmer destroys weeds in his field. States will be the last entities ever to embrace the idea of voluntary extinction, even if precisely that would save humanity from future catastrophes. Here lies the tragedy of our civilization: the instruments of state survival have become the chief obstacles to rational self-limitation.

Death

Modern states wage a double war: they not only actively suppress antinatalist views, but also methodically expel from public consciousness any reminder of human mortality. The theme of biological decline has become the final taboo of progressive society, carefully driven out of public space. We have created a culture in which death exists only as an abstraction in medical dramas, as a statistic in the news, as a rhetorical figure—but never as the personal, inescapable experience of every individual.

This conspiracy of silence begins in childhood. A child is told that "grandfather fell asleep," not that "grandfather died." Adolescents are shown films in which heroes die beautifully and instantly, but only rarely films in which they spend three years slowly disintegrating from cancer. Adults are offered mortgages, careers, and vacations, but are never reminded that all of these are temporary loans that death will eventually reclaim. The state funds longevity research, but not truthful educational programs about what senile dementia or the final stages of amyotrophic lateral sclerosis actually look like.

The medical system deepens the deception. Physicians speak of "therapy," but rarely of the inevitability of the end; of "progress in treatment," but almost never of the fact that 70 percent of medical expenditures are incurred in the final six months of a patient's life.

The illusion collapses only in old age—when a person is left alone with a disintegrating body and suddenly understands that they have been deceived. That "beautiful old age" is a marketing myth. That dementia turns personality into a frightening parody of itself. That even the most loving relatives cannot endure the daily care of a helpless body. That the state provides no dignified way to leave when life becomes torture.

And then the terrible realization comes: the pessimists were right. The world truly is structured as a system for the production of pain, in which death is not a tragic accident, but the only guaranteed mercy. But the understanding comes too late—when there is no longer any strength left to change anything, and social mechanisms block even the possibility of speaking openly about it.

The state has no use for old people who have grasped the truth—and that is why nursing homes resemble warehouses for the living dead rather than places of dignified decline. The economy has no interest in people who understand the deception—and that is why advertising shows gray-haired actors on yachts rather than real old people in diapers. The young do not want to know the truth—and that is why TikTok is full of dancing, but contains almost no videos of recorded death rattles.

This vicious circle will continue, because the truth about death destroys society's main engine—the illusion of meaning. If people understood from youth how every biography ends, they would rebel against the very system that reproduces suffering. That is why the truth is hidden until the last possible moment—until each person personally stands before dissolution and realizes that their life has been part of a gigantic machine for the production of pain, working in the service of other people's ambitions.

Voluntary End of Life

Human dignity lies not in submissive obedience to the biological instinct for survival, but in the capacity to determine for oneself the limits of one's own existence. The forced prolongation of life against the explicit will of the sufferer is not care, but violence concealed by humanistic rhetoric. Medicine that preserves biological functions at any cost while ignoring quality of life can easily turn from a means of healing into an instrument of torture.

If it is subjective experience that makes pain an evil and relief a good, then coercing someone to continue an unbearable existence becomes one of the crudest forms of violence. The subject does not choose to be born, yet it is precisely the subject who becomes the bearer of those states for the sake of which categories such as harm, dignity, suffering, and relief have any meaning at all. A society that forbids the voluntary ending of one's life therefore not only imposes entry into existence without consent, but also blocks exit from it. In this sense, the prohibition of a guaranteed and painless departure turns life into a form of inescapable torture.

Since no outside observer has direct access to another person's experience, it is the subject alone who has the strongest grounds for judging the limit of what their own existence can bear. The right to die should be understood not as an exception, not as a concession, and not as a tragic indulgence, but as a direct consequence of recognizing the subject as the sole bearer of morally significant experience.

From the standpoint of rational hedonistic egoism, the voluntary ending of one's life is the logical culmination of a reflective existence. If the criterion of evaluation remains the balance of suffering and pleasure, then prolonging a torment-filled life against one's own rational assessment is not a virtue, but an ethical mistake. No one is obliged to endure pain for the sake of abstract "values of life," cultural myths, religious dogmas, or the emotional comfort of others. In cases of incurable illness,

senile decline, irreversible disintegration of personality, or simply a stable refusal of further existence, a person is under no obligation to offer the world additional justifications.

The right to dispose of one's own life should be unconditional. No external circumstances—the presence of children, a spouse, parents, social obligations, a supposed 'future improvement,' an affective state, or anyone's moral views—can serve as sufficient grounds for prohibiting a person from voluntarily ending their own life. The very idea that someone has the right to force another to continue existing against their will is a fundamental violation of bodily and existential inviolability.

A genuinely free society should recognize one simple fact: no one is obliged to justify either their desire to live or their desire to die. The right to die should not depend on expert evaluations, permissions, humiliating inspections, or the approval of third parties. Any system in which a person must prove the adequacy of their own suffering already places their status as a moral subject in doubt.

The practical realization of this right should be entrusted to a specialized independent organization operating within a legal framework, but outside the logic of traditional medicine. Hospitals and physicians are oriented toward treatment and the prolongation of life; combining that function with assistance in voluntary death creates a profound ethical conflict. A separate structure should ensure only one thing: a safe, dignified, and guaranteed painless exit.

At the same time, strict safeguards against abuse are necessary: such an organization must operate exclusively on a noncommercial basis, excluding any financial interest in anyone's decision, and the methods employed must be exclusively reliable, tested, and humane.

The recognition of an unconditional right to end one's life is not the promotion of suicide, but a refusal to turn existence into compulsory service. When a person arrives at a stable decision to end their life, a civilized society should not stand in their way, but should ensure that they are able to leave without pain, without humiliation, and without being forced to continue what for them has already ceased to be life and has become only a painful confinement within it.

Responsibility Before the Unborn

From the standpoint of rational hedonistic egoism, which recognizes that suffering in the world not only predominates over pleasure but is a fundamental condition of existence, the creation of a new sentient being becomes an act of unjustifiable violence. In a determined universe, where every action, thought, and decision is predetermined, the person who brings life into being does not simply make a "choice"—they become a link in a mechanism that condemns another being to inevitable suffering.

But if no one chooses their actions, can we speak of parental responsibility at all? Traditional notions of guilt and punishment lose their foundation: every action is predetermined by a chain of causes stretching back without end. Yet within the framework of rational hedonistic egoism, responsibility does not disappear; it changes. In place of punishment for the past there emerges the task of reducing suffering in the future.

Individuals are only complex causal systems, and their "guilt" is illusory. But their impact on the world is real. Responsibility, therefore, should be understood not as a moral duty imposed from outside, but as a form of rational self-limitation that follows from an awareness of the consequences of one's actions. In this context, justice is not retribution, but prevention: the construction of a society in which knowledge of the inevitability of suffering leads to a refusal to reproduce new sentient experience.

Thus, the highest act of ethical mercy becomes not violence against those who already exist, but the systematic reduction of the likelihood that new victims of existence will appear, through the dissemination of knowledge and a radical revaluation of the value of life.

Declaration of the Right to Die

If free will does not exist, society faces a stark choice:

- A complete abandonment of responsibility—logically coherent, but dangerous ("criminals" would remain unpunished);
- A simulation of "justice"—hypocritical, yet familiar, since people are punished for what they could not have avoided doing.

The first option is more honest, but hardly workable: psychologically, people need to believe in punishment as something deserved. The second is absurd, yet stable, because it sustains the illusion of control.

Is a third path possible—the systematic prevention of suffering? Theoretically, yes, but this would require a radical revision of morality as such. For now, humanity clings to punitive systems because the alternative appears to be either anarchy or a cold fatalism.

Since free will does not exist, parents are not guilty of bringing a new person into the world—they were merely links in a chain of causes and effects. Yet the very fact of birth imposes suffering, and in that sense the only ethical compromise would be a guaranteed right to die.

In a world without free will, where:

- Birth is an imposed act, since the child did not choose existence;

- Suffering is an objective given, since physical and psychological pain are inevitable;
- Parental responsibility is ultimately a fiction, since parents too act within causal chains,

Such a right appears as:

- Compensation for forced existence;
- The only form of genuine autonomy[50] in a deterministic world.

In legal terms, a "Declaration of the Right to Die" would be a document that:

- Is signed by the parents at the birth of the child and becomes part of that child's legal status;
- Obliges the state to guarantee the individual access to a painless and reliable means of euthanasia, free of bureaucratic obstacles and coercive pressure.

Why would this not constitute violence against parents:

- They bear no moral guilt, since their "choice" is itself an illusion, but they nonetheless function as instruments through which harm is inflicted, namely birth;
- The declaration would therefore not be a punishment, but a mechanism for limiting harm.

Its practical consequences would include:

- A reduction in failed suicide attempts involving violent methods;
- A reduction in the suffering of those who do not wish to live but fear pain or social condemnation;
- A deterrent effect on procreation itself, since the knowledge that a child would always retain the option of departure would lead many prospective parents to reconsider reproduction.

Objections and counterarguments:

- "This would encourage suicide." No. It would merely legalize an already existing right to die, which is currently exercised through violent means against oneself;
- "Parents would exert pressure." On the contrary, the declaration would prohibit pressure; the decision would remain with the child, or later the adult, when they consciously and independently affirm that wish;

[50] In this context, autonomy is understood not as metaphysical freedom of choice. What is meant is the subject's privileged epistemic access to its own phenomenal states. Since only the subject directly experiences the intensity of its own suffering, it is the subject that has the strongest grounds for deciding whether to continue or to end its existence.

- “Life might improve.” But suffering has already taken place—for example, in the form of childhood trauma—and no one is obliged to endure years of pain in the hope of eventual improvement.

The “Declaration of the Right to Die” is not a radical idea, but a basic ethical standard. It does not impose punitive responsibility on parents; rather, it transforms birth from an absolute trap into a conditional contract: “You exist for as long as you wish, and you may always leave.”

Chapter 7: The Universe. The Collapse of Hope
PART I. THE ARCHITECTURE OF REALITY

Note. Before entering into reflections on the fundamental structure of reality, a methodological qualification is necessary. Cosmology and the metaphysics of the multiverse belong to a domain of speculative construction in which logical rigor often collides with principled unverifiability. The conclusions we reach here should therefore be understood as hypotheses that seem to us the most plausible, not as final truths.

If our argument leads to a picture of an absolutely determined and hopeless world, we must remember that this is only one possible model. To accept it without remainder would paralyze the will and render any search for an exit meaningless. For that reason, while investigating the darkest logical perspective, we will provisionally assume that our reasoning may conceal an error, an unnoticed assumption, or a gap. This methodological doubt gives us the right—and indeed the obligation—after analyzing the nightmare, to consider possible ways of resisting it, even if they prove to be only local or hypothetical.

From the Contingency of Constants to the Inevitability of the Multiverse

If we carefully analyze the apparent arbitrariness of the fundamental constants of our universe—quantities that are not derived from deeper principles, but accepted as given (the fine-structure constant ≈ 1/137, the proton-to-electron mass ratio ≈ 1836)—and at the same time take into account the philosophical thesis that absolute non-being is impossible, we are led to what seems the most natural conclusion: all logically possible variants of physical reality must exist.

Absolute non-being[51] is a logical absurdity, a conceptual emptiness that cannot, by definition, be a "state." Reality therefore exists eternally in one form or another. But if this is so, and if the fundamental parameters are indeed contingent, then the only non-contradictory picture would seem to be an infinite multiverse in which all possible combinations of laws and constants are realized. This is a strong thesis—the Principle of Plenitude in its maximal form. It does not follow with strict logical necessity from the previous premises; rather, it appears to be the most natural metaphysical choice if we do not wish to posit arbitrary limits on what kinds of universes may exist. And we have no grounds for such limits.

Our universe is only one among countless possibilities. Somewhere gravity is trillions of times stronger, making the existence of stable structures impossible. Somewhere the electromagnetic interaction is so weak that atoms cannot form. And somewhere there may exist other fundamental forces altogether, unknown to us.

[51] **Non-being** is a philosophical concept denoting the complete and absolute absence of anything whatsoever: not only matter, energy, space, and time, but also potentiality, laws, properties, and relations. Non-being implies the total impossibility of existence, change, or the generation of anything.

If this is so, then among the infinite variety there must also be worlds in which suffering dominates absolutely—either as a fundamental property of matter, or as the only possible mode of conscious experience. In such realities, evolution may have produced beings capable only of suffering, whose nervous systems register nothing but pain, while physical law turns every interaction into torment. This would be pure hell not as metaphor, but as an objective state of matter.

Moreover, the very nature of complex experience seems to make suffering an inevitable companion of any developed consciousness (see Chapter 5). Stable forms of enjoyment require highly organized matter capable of maintaining homeostasis—and that automatically creates a system in which pain becomes a necessary mechanism of regulation. In any world marked by competition, evolutionary logic turns pleasure into a mere instrument of survival rather than an end in itself. The dominance of pain over enjoyment appears as a systemic feature of any reality in which there are complex forms of organization, selection, and limited resources. The multiverse does not abolish this imbalance; it merely provides an infinite diversity of its manifestations.

The Logical Dead End of Indeterminism and the Specter of Total Determinism

And yet the very idea of "all possible worlds" runs into a subtle but fatal logical difficulty when one tries to reconcile it with indeterminism.

If the Principle of Plenitude claims that there exists an ensemble of all logically possible worlds—all combinations of laws and states—and if this ensemble must satisfy a Requirement of Uniqueness, according to which every world is unique and there are no duplicates, then a paradox arises.

If a world is indeterministic—that is, if its complete description at the "initial moment" (laws L + initial state S_0) does not determine a single history, but only a spectrum of possible histories—then such a "world" cannot be an atomic element of a static ensemble. It already contains within itself a whole ensemble of possibilities, and in doing so violates both uniqueness and plenitude at once.

It would follow, then, that for compatibility with the Principle of Plenitude, each world in the multiverse must itself be rigidly deterministic. A complete description of the world (L, S_0) would then entail, with mathematical necessity, its entire history ($S_1 \ldots S_t$). The world becomes a finished, static block—all its events, including every suffering and every thought, existing eternally as part of its mathematical structure.

It is precisely this conclusion—that each world in a complete multiverse must be deterministic—to which the two major cosmological theories built on some version of the Principle of Plenitude appear to converge.

In his Mathematical Universe Hypothesis (Level IV), Max Tegmark posits an uncountable ocean of all mathematical structures. In this picture, our universe is not

a process, but a static four-dimensional block; all its branchings and alternatives coexist eternally, and no "choice" can alter what already exists as a mathematical fact.

Jürgen Schmidhuber, by contrast, begins from different premises in his Algorithmic Theory of Everything: his multiverse is countable and consists of executable computer programs ordered by length. Here time is a real process of computation, and the future is not yet "printed." Yet even this picture does not rescue indeterminism. The quantum randomness we observe in experiments is interpreted by Schmidhuber as computable pseudorandomness: for an observer inside the system it is indistinguishable from genuine randomness, but it is fully predetermined by the code and the initial conditions. Different outcomes are possible—but only in different universes running different programs, not in one and the same universe.

Different starting assumptions, different mathematics, different metaphors—the static block of Tegmark and the running computation of Schmidhuber. Yet the final verdict is the same: the world, understood either as structure or as computation, leaves no room for genuine ontological indeterminacy.

The Worst-Case Scenario: A Library of Predetermined Nightmares

If we bring these lines of thought together, we arrive at the most consistent and most terrifying picture of all: if the multiverse is complete, and if non-being is impossible, then reality becomes an eternal library of deterministic worlds.

Our universe, with all its suffering, is not a tragic accident in a sea of possibilities. It is an inevitable and already "computed" volume in that library. Every moment of pain, every hopeless attempt to escape it, was encoded into the mathematical structure of this world from the very beginning. Even the illusion of choice and uncertainty is part of the program.

In such a reality, suffering acquires the status of an eternal mathematical truth. It does not "happen"—it simply is, as part of the static block of spacetime. Hope for change, salvation, or even for the finitude of torment becomes logically impossible. We are not prisoners. We are characters, and the tragedy has already been written.

This is the final conclusion: logic, carried to its limit, yields a picture of reality in which existence is not only tormenting in its content, but hopeless in its very form.

PART II. A SENTENCE PASSED ON EVERYONE

If this cosmological nightmare is real—if the world is indeed structured as a library of predetermined suffering—what follows from that for each of us? We are accustomed to thinking of death as release, of the unreality of the world as salvation, of humanity's self-extinction as a final act of mercy. But logic, carried to its limit, destroys even these last illusions.

Death—the End of Everything? Being and Non-Being

We cling to the thought of death as an exit—the final refuge where pain will at last disappear. But what if that is a fatal mistake? What if death, understood as non-being, simply does not exist in nature?

Modern physics leaves no room for absolute non-being. Even in "empty" cosmic space, the quantum vacuum seethes—a sea of virtual particles constantly arising and vanishing. Emptiness, in the strict sense, is impossible; "nothing" turns out to be a physically incoherent concept. The very fabric of reality is an eternally fluctuating field of potentialities.

Our consciousness is not an ethereal soul, but an immensely complex physical process. Billions of neurons, electrical impulses, synaptic connections—this entire material organization, governed by the laws of physics, gives rise to the phenomenon of subjective experience. And we have no grounds for supposing that this organization vanishes without remainder.

In a multiverse in which all possible combinations of matter and energy are realized, the probability of the recurrence of any pattern approaches unity. You disperse into atoms today—but somewhere, sometime, in another universe, a similar configuration of matter will come together again. Not identical—for that would require the reproduction of every molecule in precisely the same state—but sufficient to generate subjective experience.

And here the radical conclusion emerges: subjective death is impossible in principle. At the moment when material conditions once again arrange themselves into a pattern capable of generating consciousness, you will "awaken" instantly, with no sense at all of time having elapsed. For you there will be no millennia between destruction and renewed birth; there will be only the uninterrupted "now"—the moment of self-awareness, followed immediately by collision with reality.

You will be born again and again—in endless variations, in countless bodies, in countless worlds. Sometimes as a human being, sometimes as an animal, sometimes as a being whose form we cannot imagine. Each time it will be "you" only in the sense that it will be the center of a subjective universe, the point from which the world is experienced as "here" and "now." And this requires no exact recreation of your former structure—only some organization capable of generating consciousness. After death, your personality—your memories, your character—will vanish forever. But the very quality of conscious existence, the bare fact of presence in the world, will inevitably recur in another bearer. You will not awaken as yourself—you will awaken as something that once again undergoes the burning reality of being.

The consequences are horrifying:

- Your personality will disappear, but the capacity to suffer will remain eternal. It will pass from body to body, from age to age, from universe to universe, never finding rest;
- Every new conscious being is, in the subjective sense, your next awakening. Every animal torn apart by a predator, every fish suffocating in a net, every old man dying alone—that is you, stripped of memory of previous deaths, yet undergoing the present one in full;
- Even if humanity dies out and the Earth burns away, somewhere in the cosmos beings will continue to arise again and again, undergoing the same basic horror of conscious existence. Stars will be born and die, galaxies will drift apart into darkness, yet the chain of awakenings will never be broken.

The fear of non-being gives way to the nightmare of being condemned to eternal awakening in new forms, each of which will be convinced that it is the "real" one, unique and singular, until it disappears to make way for the next. Even if "you" do not recur, the experience of being itself will recur without end. And each time—with the same freshness of fear, pain, and despair. The universe is not merely cruel—it is pitilessly efficient in the production of suffering. Death, which we once revered as a liberator, turns out to be only a temporary interruption in an endless chain of tormenting awakenings.

Simulation: The Final Illusion

Returning to the Fermi paradox: if the probability of life arising in the universe is so high, why do we not observe its manifestations everywhere? This silent cosmos suggests two fundamental hypotheses about the fate of advanced civilizations.

The first is self-destruction as an attempt to bring suffering to an end. But this path is naive, and for the following reason: even if one civilization destroys itself, life will inevitably arise again—in other worlds, in other stretches of time. The complete eradication of life is impossible, for non-being is an illusion and matter is eternal. Suffering, as an inseparable companion of complex forms of organization, will be reborn again and again.

The second, and more probable, possibility is flight into artificial realities. If life cannot eliminate suffering in the physical world, it may create its own virtual universes in which pain is either absent or controlled. This would require a deep understanding of the nature of consciousness: what it is, how it arises, whether it can be transferred onto other substrates. If consciousness is a process of a certain kind of data processing, then it can be simulated, modified, or even improved by eliminating the evolutionarily entrenched mechanisms of suffering.

To understand whether consciousness can be transferred to another substrate, one must first address a more fundamental question: what happens when consciousness is copied exactly onto an identical substrate? Let us consider the classical thought experiment of creating a complete copy of a human being.

From our earlier reflections, one important conclusion follows: the created copy would unquestionably possess consciousness. This follows from the fact that consciousness is the product of a certain organization of matter, and if that organization is reproduced with absolute precision, then consciousness too must arise in full. The copy would not be a "philosophical zombie"—an empty shell without inner experience—since, in our picture of the world, qualia are inseparable from the corresponding physical processes.

A subtler question then arises: how would the copy experience itself if the original were not destroyed in the copying process? According to our analysis, both beings—the original and the copy—would possess full consciousness, but they would be two different subjects of experience. At the moment of the copy's creation they would be identical in every respect, but from that moment onward their selves would begin to diverge, accumulating different experiences and memories.

If, however, the original is destroyed in the process of copying, the situation becomes even more enigmatic. The subjective self bound to the original organism truly disappears—difficult as this is to grasp, it seems closest to the truth. The copy will possess all the memories of the original and will feel itself to be its continuation, but metaphysically it will already be another self.

This paradox may be illustrated by an analogy: imagine that your consciousness is the flame of a candle. If one candle lights another, two separate flames result. If the first candle is then extinguished and only the second remains, it is formally a different flame, even though it is identical in kind. So too with consciousness: the copy is a new flame of subjectivity, even if it exactly reproduces the original.

From these reflections a fundamental conclusion follows: in any copying of consciousness, the original substrate remains bound to its own mode of being, while the copy begins an existence of its own.

The situation becomes especially difficult in the case of digital copying. Differences in the basic operating principles of biological and artificial substrates may lead to a situation in which the digital copy preserves all the memories and behavioral patterns of the original, while at the same time acquiring a qualitatively different form of subjective experience. This creates a paradox: on the one hand, we may be able to create functionally equivalent copies of consciousness; on the other, we may never be able to determine whether the copy actually undergoes experience in the same way as the original. The problem recalls the familiar philosophical question: how can we know that other human beings feel pain as we do, if all we can observe are their external reactions?

Thus, even if advanced civilizations do find refuge in artificial worlds, this does not solve the problem of suffering—it merely reproduces it in new forms, generating ever more subjectivities inseparably bound up with pain. The very idea of

“transferring” consciousness turns out to be an illusion: all we can create is a copy, a double, not a continuation of our own self.

But what if our own world, too, is a simulation? Do we have any chance of escaping it, or even of understanding what is happening?

Suppose that our world is an artificial construct running on some cosmic computer. Knowing this gives us nothing: neither the ability to leave the simulation nor any power over it. Thousands of people are convinced that they live in the Matrix, yet they still wake up to alarm clocks, get cancer, and die. Appeals to the “simulators” go unanswered—prayers, rituals, direct demands all remain without response. If creators exist, then either they do not care, or they have forbidden themselves to intervene, or else we are merely a background process that no one is even watching. Evil is not punished, good is not rewarded: so-called executioners die in their beds, while their victims die in agony. If this is a game, then either its rules do not exist, or they were written by a monster.

Even when we become aware of the illusory nature of the world, we cannot bypass it—the very idea of a “bypass” presupposes holes in the code, backdoors, a developer console. But the simulation does not respond to our attempts to violate it. It functions according to iron laws that are not given to us to alter.

Yet the most terrible possibility lies elsewhere. If the simulation is real, our suffering may be not a bug, but a feature. Perhaps the entire construct was created precisely for the production of pain: for experiment, for entertainment, for punishment. We do not merely suffer—we suffer at someone’s will. Death does not become an exit: if consciousness can be simulated once, nothing prevents the creator from launching a new copy. Even “awakening” may prove to be only the next level—the classical narrative of escaping the Matrix presupposes the existence of a genuine reality, but what if that reality too is only a simulation? The layers of embedding may recede without end, and we may never be able to know whether we have reached the “real” world at all.

The simulation hypothesis does not open a door to salvation. It merely adds one more layer to the nightmare: the possibility that our horror is not an accident of blind nature, but someone’s design. And in that case knowledge becomes not liberation, but a torture of a higher order. The world is either meaninglessly cruel or meaninglessly absurd—and in either case there is no escape for us.

Despair: Nature Will Go On Suffering Without Us

As Mainländer observed, the only truly moral act is the voluntary refusal to participate in the endless cycle of torment. But even if humanity were to disappear in an act of collective self-extinction, this would not bring suffering to an end—only a tiny pause: 99.9% of suffering on Earth would continue without us.

Imagine it: the last human being closes their eyes. In the forests of the Amazon, jaguars continue tearing open the backs of monkeys while they are still alive and screaming. In the ocean, fish continue swallowing one another, slowly digesting each other alive. Beneath the bark, wasp larvae continue eating out the insides of caterpillars, leaving them just enough life not to die too soon.

Nature, which we romanticize as "harmonious," is in reality an arena in which every creature is condemned to hunger, disease, parasites, freezing, suffocation. And so it has been for billions of years, every day, every second, without interruption.

Without human beings, the world will not become better—it will merely lose the only species capable of asking: Should it really be this way?

But even that is not the main point.

Even if all life on Earth were to disappear, the fundamental laws of the universe would remain. And somewhere in the universe, in another planetary system, new life would inevitably arise. A new nervous system. A new way of feeling pain.

Physics is relentless: wherever there are conditions for the emergence of life—liquid water, a source of energy, carbon chemistry—life will arise. And where there is life, there is evolution. And where there is evolution, there is the nervous system as an instrument of survival. And where there is a complex nervous system, there is pain.

This is not a biological accident. It is a physical necessity.

Our disappearance would change nothing. Dinosaurs suffered for 170 million years and vanished. We came after them. We will vanish, and others will come after us. If not on Earth, then on Eridanus; if not in this galaxy, then in Andromeda.

Here lies the final horror: we are not merely unable to defeat suffering—we cannot even guarantee that our sacrifice would change anything. The world will continue to exist according to its cruel laws, indifferent to our self-sacrifice, just as it is indifferent to the cry of a mouse crushed beneath a wheel.

We may refuse to reproduce—nature will go on reproducing without us. We may depart—nature will remain. We may scream—nature will not hear us.

And in that silence, in that absolute cosmic indifference to our despair, lies the deepest abyss of hopelessness. We are not merely doomed—we are insignificant. Our pain, our struggle, our awareness are only local fluctuations in an eternal, mindless process that will continue so long as the universe endures, and will not pause for a single second so that even one tear might not be shed in vain.

PART III. ATTEMPTS AT EXIT

On the Impossibility of Destroying the World and the Ethics of Transforming Reality

The nature of reality is such that the complete destruction of the existing world is impossible in principle. Even the most catastrophic scenarios would represent not the cessation of being, but only its radical transformation. This fundamental physical fact places us before an extremely difficult ethical dilemma: if the very structure of reality gives rise to suffering as an inseparable component of the existence of complex systems, and if any final "switching off" is impossible, then what strategies for the minimization of pain still remain available to us?

Many philosophers and thinkers have proposed radical projects for the destruction or transcendence of reality, proceeding from the idea that suffering is a fundamental property of being. These conceptions, however, relied on the assumption that the full realization of such scenarios was possible in principle:

- In the Buddhist tradition, the ideal of nirvana was understood as the final cessation of the cycle of rebirth (samsara) and the extinction of all forms of suffering. Although classical Buddhism spoke primarily of personal liberation, some of its interpretations—especially in Mahayana—developed the idea of the "liberation of all beings," thereby implicitly suggesting the possibility of a total overcoming of reality in its suffering form;
- In his philosophy of the world as Will, Arthur Schopenhauer proposed asceticism as a path toward the negation of the will to live. He believed that if a sufficient number of people attained an enlightened understanding of the illusory nature of individual existence, this could lead to the self-negation of the world as Will as the metaphysical ground of suffering;
- Eduard von Hartmann, developing Schopenhauer's ideas, proposed a project of humanity's collective self-extinction through the development of a "universal reason." In his eschatological[52] conception, the technologically advanced humanity of the future was supposed to recognize the meaninglessness of existence and voluntarily cease reproducing life, thereby bringing about a "liberation from the world";
- In Russian cosmism, especially in Nikolai Fyodorov, there existed the idea of the "regulation of nature," which in its more extreme interpretations implied the possibility of radically transforming the very structure of reality in order to eliminate suffering and death;
- Contemporary antinatalists and advocates of "voluntary human extinction" propose programs for the gradual cessation of biological reproduction as a way of "destroying the world" through the elimination of its subjective experience.

[52] **Eschatology** is a religious or philosophical doctrine concerning the ultimate destiny of the world and of humanity, including the end of the world and postmortem existence.

All these conceptions share a common feature: they assume the possibility of a full and final realization of the project of overcoming reality, whether through metaphysical self-negation (Schopenhauer), technological self-destruction (Hartmann), or the cessation of the reproduction of consciousness (antinatalism). Yet, as our contemporary understanding of physical law and the nature of reality shows, such projects run up against principled limitations:

- Matter and energy cannot be destroyed, but only transformed;
- Even the complete disappearance of biological life does not guarantee that other forms of sentience will not arise.

Thus, the historical philosophical projects aimed at the "destruction of reality," for all their logical rigor and ethical motivation, prove unrealizable in light of contemporary knowledge about the fundamental laws of the cosmos. This does not nullify the ethical impulse behind them, but it does require a reconsideration of strategies for dealing with suffering within a structure of being that may be insurmountable in principle.

The Transformation of Reality: The Only Way?

If the destruction of reality is not an available solution, then the next question must be asked: is it possible not to end being, but to radically reorder it? The only consistent exit would seem to be the transformation of the fundamental properties of the universe in such a way that systems capable of suffering could no longer arise within it.

What would it mean to "transform reality"? It would mean not the destruction of the world, but its transition into a state in which:

- The emergence of complex sentient systems is impossible—even if panpsychism is true and elementary forms of proto-qualia, the simplest forms of subjective experience, exist at the fundamental level, they must not be able to combine into full-fledged suffering;
- The conditions for the appearance of unsatisfied needs are excluded, so that no form of frustration, pain, or tormenting desire can arise;
- The very possibility of the evolution of suffering disappears, so that no process—biological, digital, or otherwise—can lead to the emergence of new forms of sentience.

Although such a task appears fantastical, it is the only logically consistent response to the picture that has opened before us. If reality cannot be destroyed, but its present suffering form cannot be accepted either, then only one possibility remains: its remaking. Paradoxically, contemporary physics already sketches the outlines of possible instruments for such a project.

Yet before turning to these hypothetical technologies, we are obliged to ask a question that makes all cosmic engineering—even if technically feasible—metaphysically suspect. The question is simple and terrible: what would be the point of annihilating matter in our universe if the multiverse is infinite and contains all logically possible worlds?

If the Principle of Plenitude is true, then somewhere in the infinite ensemble of realities there already exists a universe identical to ours in every respect except for the fact that in it we did not initiate the phase transition. More than that: there exist infinitely many such universes. Our success would not reduce the total quantity of suffering in the multiverse—it would remain infinite. We would not be subtracting pain from the total equation; we would merely be creating one more world, an additional world free of pain, without eliminating a single one of the hells that already exist.

Moreover, the very logic of infinity requires not only the existence of "corrected" copies of our world, but also their "inverse" analogues. If the full multiverse really does contain everything that is logically possible, then it must also contain worlds in which the transformation of reality gave rise to even more refined forms of suffering. We cannot guarantee that our project would be in the minority; we cannot even guarantee that it would be in the majority. In infinity, any finite proportion loses all meaning.

This is not a technical objection. It is an ontological verdict. In an infinite multiverse, local salvation becomes statistically negligible. We may turn our universe into a paradise—and it would mean nothing for the total sum of pain. Somewhere, in the infinite library of worlds, our hell would continue to exist eternally, and no cosmic engineering could remove that volume from the collection.

But here, at the deepest point of despair, we must return to the methodological doubt with which we began. Our understanding of the multiverse, of infinity, and of the Principle of Plenitude is a logically coherent but in principle unverifiable hypothesis. We cannot prove that infinity really contains all variants; we cannot rule out the possibility that some fatal and non-obvious error lies hidden in our reasoning. Cosmology remains a science of the unobservable, and its conclusions, however ironclad their logic, will never become facts in the same sense in which the fall of a stone is a fact.

But even if we set that doubt aside—even if we allow that the multiverse is infinite and complete, and that our project of local salvation is statistically negligible—something still remains that no infinity can annul.

On Earth there live eight billion human beings. Each of them is an entire universe of pain, fear, hope, and despair. And to say that the life of one person means nothing against the background of eight billion is to misunderstand the very nature of ethics. We never say: "Since billions suffer, there is no point in saving this one." We never

think: “Since death is inevitable, there is no point in treating this disease.” On the contrary, it is precisely the scale of the catastrophe that makes every individual salvation infinitely precious.

The multiverse does not abolish this logic. It only gives it a cosmic dimension.

Yes, somewhere in infinity there are worlds in which our project failed, and worlds in which we never even attempted to begin it. Yes, the sum of suffering remains infinite regardless of our efforts. But here, in this universe, at this point in spacetime, in this concrete moment of being, we may still make it the case that some portion of suffering—however negligible, however vanishingly small on the scale of the cosmos—ceases to exist.

Here the author must make what is perhaps the most uncomfortable and most honest qualification in the entire book. If there is a weakest point in its argument, it is probably here—in the transition from total pessimism to the claim that local reductions of suffering nevertheless retain meaning. Logic, carried to its limit, is indeed capable of paralyzing action: if reality is an infinite reproduction of pain, if all our efforts are statistically negligible, if even the elimination of local forms of suffering changes nothing in the overall structure of being, then the very idea of action begins to seem like no more than the final psychological defense against complete despair.

I cannot fully refute this objection. More than that, it strikes me as the heaviest one in the entire construction of the book. And yet the conclusion that action remains necessary arises here not as an optimistic patch, not as a return to comforting illusions, and not as faith in some hidden benevolence of the world. It arises as an attempt—perhaps a final one, perhaps one not fully defensible philosophically, but the only one I cannot entirely discard.

So long as the total sentence passed on reality remains a metaphysical model rather than an absolutely established fact, the renunciation of every attempt to reduce concrete suffering would itself not be a strict conclusion, but one further act of faith—this time a faith in the final futility of all resistance. Action therefore remains here not as hope, but as a gesture against paralysis; not as confidence in salvation, but as a refusal voluntarily to take the side of the horror that already exists.

It is with this hopeless yet uncapitulating clarity that we must consider the few instruments modern physics still leaves us for the struggle against reality.

Phase Transition into the True Vacuum

A phase transition into the true vacuum represents the most fundamental of all theoretically possible ways of transforming reality. In modern physics, the vacuum is understood not as emptiness, but as a state of minimal energy that determines the fundamental properties of our universe. According to quantum field theory, our

vacuum may be “false”—a metastable state capable, under certain conditions, of passing into a more stable configuration governed by different physical laws.

The mechanism of such a transition may be imagined as a “bubble” of true vacuum, arising either spontaneously or artificially, and then expanding at the speed of light, transforming all matter in its path. Within such a bubble, entirely different physical constants would prevail: the strong nuclear interaction necessary for the existence of atoms might disappear; the nature of electromagnetism might change, making the formation of complex molecules impossible; or the very possibility of any stable structures might vanish altogether.

What matters most is that such a transition would seem to address the problem of suffering at the most fundamental level. Even if one accepts some version of panpsychism—the view that elementary forms of proto-experience are inherent in matter as such—then within the new vacuum state these proto-qualia would either cease to exist or become so simple that they could no longer combine into full-fledged suffering. There would be no neural networks capable of complex pain-processing, nor even the simplest organisms capable of anything resembling discomfort.

In technical terms, the initiation of such a transition would seem to require one of three things:

- The creation of extreme energetic conditions, perhaps in next-generation particle accelerators, under which a bubble of the new vacuum might spontaneously nucleate;
- A directed modification of quantum fields through as-yet-unknown technologies capable of pushing the system across the relevant energy barrier;
- The use of cosmological-scale processes to produce the conditions for such a transition on the scale of the universe itself.

The Creation and Stabilization of a Microscopic Black Hole

One theoretically possible means of radically altering reality would be the artificial creation of a microscopic black hole, followed by its stabilization.

1. How might a microscopic black hole be created?

Contemporary physical theories, especially certain models of quantum gravity and string theory, allow for the possibility of black holes of microscopic size. Such objects might arise:

- In the earliest moments after the Big Bang, as primordial black holes, if the density fluctuations of matter were sufficiently great;
- In particle collisions at extreme energies, for example in next-generation accelerators;

- If humanity, or some other civilization, learned how to concentrate sufficient energy into a sufficiently small volume.

Black holes, even microscopic ones, possess several properties that make them conceivable instruments of large-scale transformation:

- They absorb whatever matter they come into contact with, thereby increasing their own mass;
- According to Hawking's theory, small black holes evaporate, but if they are continuously supplied with matter this process might be slowed or halted;
- If such a black hole were somehow to arise within a planet or a star, it would begin consuming it from within, gradually destroying it.

2. How might such a black hole be stabilized for controlled transformation?

The principal problem with microscopic black holes is their extremely rapid evaporation through Hawking radiation. To use them as an instrument of transformation, one would have to:

- Find a way to feed the black hole continuously with matter, preventing its evaporation;
- Maintain it in a stable state, perhaps by means of magnetic fields or some other presently unknown technology, until it had absorbed the required quantity of matter.

If that proved possible, such a black hole might function as an instrument for the progressive dismantling of matter, reducing stars, planets, and even galaxies to more elementary constituents.

Strange Matter

Strange matter is a hypothetical form of quark matter[53] consisting of approximately equal quantities of up, down, and strange quarks. According to some contemporary physical theories, such a configuration may represent the most stable state of matter in nature—a kind of atomic foundation of reality. If this hypothesis is correct, then under certain conditions strange matter could become a powerful instrument of transformation, gradually converting ordinary matter into its own structure through a process of strange-matter conversion.

The mechanism of such a transformation would be as follows: when strange matter comes into contact with ordinary atomic nuclei, those nuclei are restructured into a more stable quark configuration. Each proton or neutron encountering strange matter would, in theory, be transformed into a strangelet—a compact droplet of strange quark matter. This process could spread by way of a chain reaction, gradually

[53] **Quarks** are fundamental particles in the Standard Model of particle physics, the indivisible constituents of protons, neutrons, and other hadrons.

converting all encountered matter into an ultradense strange form. According to some estimates, a strangelet only a few femtometers across might be sufficient to initiate a full-scale transformation of terrestrial matter.

Strange matter would potentially alter the most basic physical characteristics of reality:

- The familiar atomic structure of matter would disappear;
- Nuclear interactions would be radically altered;
- An entirely new form of material organization would emerge.

Proton Decay

The theoretical possibility of proton decay represents one of the most fundamental imaginable ways of altering the structure of matter. Unlike other radical methods—vacuum phase transition, black holes, or strange matter—this approach is aimed at the destruction of the very building blocks of matter. If a controlled chain reaction of proton decay could be initiated, it would lead to the gradual transformation of all baryonic matter[54] in the universe into radiation and leptons, thereby effectively eliminating the possibility of complex structures, including biological carriers of consciousness.

Its practical realization would appear to require:

- The creation of conditions under which spontaneous decay could occur, such as extremely high energies or temperatures;
- The development of some mechanism by which the effect could propagate;
- Control over the rate of the process.

In theory, if a "seed" of decay were created—a region of space in which proton stability had been disrupted—the process might spread:

- Through quantum-mechanical tunneling;
- Through the formation of topological defects;
- Through phase transitions in the vacuum.

Fundamental Limitations and Risks

Despite their apparent radicalism, all these methods run up against the same insurmountable problems, which make them either technically unrealizable, ethically unacceptable, or—worst of all—both at once.

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[54] **Baryonic matter, leptons, and radiation** are three forms of matter and energy. Baryonic matter (protons and neutrons) makes up the visible universe. Leptons (such as electrons and neutrinos) are elementary particles not composed of quarks. Radiation (photons, gamma rays) is energy in the form of electromagnetic waves and has no rest mass. Proton decay transforms baryonic matter into leptons and photon radiation, destroying the basis for complex structures, including organic life.

1. Cosmological futility: the speed of light and the expansion of the universe

Any process of transformation—whether a bubble of new vacuum, a strange-matter conversion, or a front of proton decay—is limited by the fundamental boundary set by the speed of light. And our universe is not merely vast: it is expanding at an accelerated rate. This means that even if such a transition were initiated today, it would never reach distant galaxies. Enormous regions of the cosmos would remain forever untouched and would continue to generate new forms of life and suffering for trillions of years. We cannot "switch off" the universe—we can only create a local island of altered reality in an immeasurable sea of pain.

2. Epistemic blindness: the unpredictability of the outcome

The central problem with any radical transformation of reality lies in our principled inability to foresee the final result. We wish to press a "stop" button, but we do not know whether that button would instead activate a hell—perhaps one even worse than the one from which we were trying to escape.

A new vacuum arising from a phase transition might obey laws we are incapable of predicting. In theory, it could give rise to forms of sentience unknown to us—perhaps even more intense and more refined than anything that exists now. Matter absorbed by a black hole does not simply vanish in the sense we would wish; its ultimate fate remains disputed, and we cannot exclude the possibility that in the course of collapse or subsequent evaporation, new and unfamiliar states might arise. Strange matter, even if stable, might itself turn out to be a substrate for unknown forms of organization, and with them new kinds of consciousness, whose suffering would be as real as it would be unimaginable to us. Proton decay, in turn, might be accompanied by the emergence of exotic particles with unpredictable properties.

We are in the position of a surgeon operating blind, ignorant of the patient's anatomy and unable to guarantee that the organism will not function even worse after the operation than before it. Our ignorance of the fundamental laws of being makes any project of total transformation an act of colossal risk.

3. Technological unattainability in the foreseeable future

All the methods described above require energies and technologies that exceed anything humanity possesses today by many orders of magnitude. The energies needed to initiate a vacuum phase transition or to create a stable microscopic black hole lie far beyond the reach of contemporary particle accelerators.

It cannot be excluded that in the distant future—perhaps in centuries or millennia—humanity may come closer to solving such problems. But today we do not even possess complete theoretical models describing these processes. We do not know with certainty whether stable strange matter exists in nature, or whether protons

decay at all. Until such fundamental questions are answered, any talk of practical implementation remains in the realm of pure speculation.

4. Moral uncertainty and the right to exist

Even if we suppose that all technical problems might one day be solved, and that the consequences could be rendered predictable and desirable, there would still remain a question that places the ethical status of any project of total transformation in doubt: the right to exist of those who have given no consent.

The act of "liberating" the world from suffering through total transformation, without the consent of its inhabitants, is an act whose moral status remains deeply uncertain. Can the destruction of all—including those who did not ask to be delivered—be regarded as a good? This question has no obvious answer.

The Minimal Ethical Duty

Radical projects for the transformation of reality remain, for the time being, largely speculative, technically inaccessible, and metaphysically unresolved. Yet it would be premature to declare this horizon forever closed. It is not impossible that in the future—and perhaps not one so distant as it now appears—means may arise for intervening in the fundamental conditions of existence, means that are now available to us only as limiting hypotheses. Until such possibilities become real, what remains is that which can be changed already now: the reduction of concrete suffering within the scale accessible to us.

This is the minimal ethical duty in a world where suffering is already given to us as an ineliminable fact. We cannot eliminate suffering in the fullness of reality. But we can diminish it where it depends on us.

What can we do already now:

- Spread knowledge about the nature of suffering and about antinatalist ethics. People must understand that birth is not a neutral act, but the imposition of life without consent, and therefore the imposition of pain, loss, and death;
- Support childlessness. In a world where life is inseparable from suffering, the refusal to bring new beings into existence may be regarded as an act of mercy;
- Develop technologies for the reduction of suffering. This includes medicine, palliative care, and the right to end one's life voluntarily, as well as future directions in neuromodulation, artificial intelligence, and other means of reducing pain;
- Advance an ethics grounded in the minimization of harm. Not abstract "happiness," not elevated myths of purpose, but the concrete reduction of suffering must become the principal criterion of action.

This is not enough. But everything else either remains inaccessible to us for now, or has not yet emerged from the domain of limiting hypothesis. For that reason, the local reduction of pain remains, at this stage, the only practically justified form of resistance to reality in its present form.

Conclusion

Many of the lines of reasoning presented in this book may turn out to be mistaken—both the history of science and the history of philosophy make it clear that humanity has repeatedly erred in its attempts to describe reality. Our theories about the nature of consciousness, the multiverse, or the possible transformation of matter may prove as naive as medieval conceptions of the cosmos. Yet there is one respect in which we are unlikely to be wrong: the immediate felt experience of suffering. Even the most convinced deniers of qualia, when subjected to unbearable pain, are forced to acknowledge that suffering exists, and that it is not an abstraction but a fundamental fact of our being.

We are the product of blind cosmic processes, and evolution, in its senseless optimization for survival, has endowed us with the capacity to feel. There is neither pessimism nor optimism in this—only sober recognition. Reality is structured in such a way that suffering is one of its systemic properties. In a certain sense, one might even envy the pessimists of the past: at least they believed there was some way out of this nightmare—whether nirvana, apocalypse, or collective self-extinction. Today, by contrast, we are approaching a far more painful conclusion: perhaps there is nothing we can do about it. The long history of the universe, continuing to exist in its cruel form, suggests that the radical "destruction" of this world may be unattainable. Even flight into virtual realities does not guarantee salvation, since it too depends on equally unreasoning beings produced by an unreasoning universe.

Yet if there is any glimmer of hope, it lies in the possibility that one day there may arise beings—or many beings—who, while themselves only links in the chain of causality, may become instruments for freeing at least some part of this world from suffering. And therein lies the paradox of our condition: we are the offspring of the very blind forces that condemned the world to suffering, yet this same blind causality, having reached in us the capacity for reflection, may also give rise to action directed against itself. Not in spite of it, but because of it.

The attempt to reduce pain remains the only ethically justified act—not because we can conquer the system, but because the system itself, in the form of us, acquires a chance for partial self-healing.

This book is a subjective vision of good and evil, and others may hold a different one. It emerged as a natural element in the chain of cause and effect that constitutes this universe, and in that sense there is nothing alien in it. We are all elements of a single whole, and this is not a mystical revelation, but a statement of fact: we are made of the same matter and subject to the same laws as everything that exists. Treat every

living thing with compassion—not because it is “right,” but because within this cold mechanism of the cosmos we are all—human and beast, and perhaps even the trembling leaf on the branch—equally alone before the face of suffering.

Authors

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Arthur Schopenhauer—founder of modern philosophical pessimism; The World as Will and Representation; the concept of the Will.

Philipp Mainländer—the philosophy of redemption; the will-to-die and the redemption of being through extinction.

Eduard von Hartmann—The Philosophy of the Unconscious; the idea of collective self-extinction as the goal of evolution.

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Emil Cioran—essayistic pessimism.

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David Benatar—contemporary antinatalism; the asymmetry between suffering and pleasure.

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Brian Tomasik—the ethics of suffering minimization; analysis of the risks of artificial intelligence.

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Vadim Filatov—author of Ethics of Nothingness. Life without Meaning: The Saddest Philosophy.

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John Searle—the Chinese Room argument; critique of strong AI.

Thomas Metzinger—the self-model theory of subjectivity; The Ego Tunnel; the ethics of consciousness.

Robert Sapolsky—neurobiological determinism; the denial of free will.

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