

The Gnosis of Schwamendingen

Are gods artificial super-intelligences?

An interpretation according to Mark Sedgwick, Tracie Matysik, Renée Bergland, Lisz Hirn, Isaiah Berlin, Aquilino Morelle, Dirk Hoffmann, Suzan Blackmore, Roman Yampolskiy, James Lovelock, Emily Riehl, Martin Brandenburg, René Girard, Jack Miles, Rolf Pfeifer, Josh Bongard, among many others.

*Jacques Ambühl
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Intention

Love is not a topic of the present essay. Thanks to or because of a strict Calvinist upbringing in French-speaking Switzerland in the sixties, I developed a methodology of thought that has shaped my life. Discussions with new friends here in the Hirzenbach-Schwamendingen-Wallisellen area have led me to describe this way of thinking to some extent.

In relation to the present text, Internet connections are available on page 35.

The Roman World

Marguerite Yourcenar. The Crown and the Lyre:

Il y eut un temps où, les dieux de la Grèce n'étant plus et le Christ n'étant pas encore, l'homme seul fut..

When the Greek Gods disappeared and Christ had not yet arrived, there was a time when man became alone.

Although rituals have shaped human societies since the beginning of time, the initialization of the traditionalist movement is classified in the post-Jesus era, around the 2nd century.

In this regard, the Roman philosopher Plotinus, founder of Neoplatonism, is often¹ mentioned as the trigger of the Traditional Movement. In fact, after the emergence of Christianity, especially in the educated circles of Roman society, he tried to give a new and guiding role to ancient Greek philosophy. In these strata, Christianity, which was quite new at the time, was graded as a simple faith suitable for the uneducated people of the rabble. Conversely, the Christians classified the development of Neoplatonism and Gnosis as a threat to their new religion.

During this time, numerous religions and doctrines circulated throughout the Roman Empire, which originated from the Persian region (Hindu Kush), India, the Arab world, the Middle East and, last but not least, China. Here, in addition to the old, mostly insignificant Greek gods, Mitra, Vedas or Vedanta, the first beginnings of Sufism, Gnosticism, mysticism, Confucius and perhaps Odin from the northern (boreal) regions of Europe may be mentioned. It has even been claimed several times that the young Jesus enjoyed his education in a secret society of the Gnostics.

¹ Plotinus (Ancient Greek Plotinos Plōtínos, Latinized Plotinus; * 205; † 270 on a country estate in Campania) was a Antiker Philosoph. He was the founder and best-known representative of the Neoplatonism. He received his education in Alexandria at Ammonius Sakkas, from which he received significant impulses. From 244 he lived in Rome, where he has a School of Philosophy which he led until his fatal illness (Wikipedia).

At this point, the difference between mystic and Gnostic should be determined. Both strive for an approach to superhuman, supernatural and perhaps cosmic wisdom.

Most of the time, mystics strive for a more emotional effort, which should not only be spiritually influenced, but also accompanied or guided by physical and even sexual sensitivity. Gnostics, on the other hand, try to keep bodily or bodily impulses under a strict yoke. Asceticism, meditation, music, philosophy, rational thinking, education and further education brand their movement. I, as a mathematician, tend to put myself in this category.

The spread of such ideas and beliefs was facilitated thanks to the excellent communication and communication network that was then developed throughout the Mediterranean and the Roman Empire. The dominant languages and scripts of the time, ancient Greek and Latin, also allowed for a wide and efficient distribution and interpretation of all these doctrines, traditions, ideas and beliefs.

In fact, this structure looked very similar to our modern, globalized world, where the Internet and English allow for the global exchange of ideas and fakes.

Christianity, Islamic Area

After the development of the Christian religion and the subsequent implosion of the Roman Empire in the fifth century, the Islamic religion also spread rapidly from North Africa to the Iberian Peninsula from 622 onwards. Successful Gnostic communities and movements flourished in these areas, especially under the concept of Sufism.

Then (and still) the new religions were torn apart into two streams: the esoteric and the exoteric. The exoteric is the secular imprint of a religion through conquest, domination and converted coercion (proselytism). The second movement, which is known to move little, is the esoteric effort, which should actually be present in all religions in various ways.

As I said, even then official religions and belief systems were considered corrupt and even perverse for many selected and sensitive people. In fact, these systems were (and still are) exoteric.

Since the old Roman order no longer existed and numerous princes, kings, local rulers controlled limited areas, people and communities who had advocated an esoteric, mystical or gnostic orientation tried to hide under the radar of the rulers. The two main options were the religious orders, for example the Benedictines or the Dominicans, and the universities, both in the Christian and Islamic worlds (under the guise of Sufism).

Alongside and above the messages of the official religions, these people, monks and scholars, tried to cultivate, develop and teach the characteristics of the ancient traditions - Gnosis, Sufism, Vedanta, Mitraism, etc. In this context, in addition to traditionalism, one also speaks of perennialism, which translates from Latin means: preservation and transmission of the old teachings and customs. General characteristics of these people were their modesty, restraint, generosity, philanthropy, but also rationalism and the right and sharp way of thinking.

In Western Europe, St. Thomas Aquinas of Italy, Anselm, the Bishop of Canterbury in England, Meister Eckert of Belgium, Niklaus of Flüe of Switzerland (Niedwalden), Hildegard of Bingen of the Rhine region, Germany, and perhaps even Katharina von Zimmern of Zurich, may well be mentioned. They often represented values of ancient Gnosis, but were often objected to by the cramped authorities of their respective organizations. Many others, which I simply don't know, came from the Islamic and Indian worlds.

In Eastern Europe and in the areas that were once called Russia, the Orthodox version of the Christian movement unfolded very early in Eurasian history. After the separation of the Roman Empire into the eastern part with Constantinople (Byzance, now Istanbul) as its capital and the western part with Rome as its capital, the Orthodox Church developed in a very traditionalist way. Thus, in the East, under the rule of the Orthodox Church, one can speak of an integrated tradition that has decisively determined the structure of society until now. And to convince yourself of this, you can probably read "The Brothers Karamazov" by Dostojevsky.

Back to the West

With the philosophical enlightenment of the 17th and especially the 18th century, tradition, primarily religious tradition, was badly combated. Philosophers such as Descartes, Spinoza, Leibniz, Rousseau, Kant, Voltaire and many others tried to dissect and dissect religions and religious feelings. This movement became particularly virulent in France, where the church and the royal court have always kept the people and the intellectual community under an unbearable knout.

The effect of this, to put it very simply, became the French Revolution. The representatives of the nobility and the noble French class were literally massacred with guillotines during the so-called Terror.

But it was precisely in these noble strata of society that tradition was perceived and cultivated. Here I have no better example than André Chénier, and the opera by Umberto Giordano that we saw and heard together². Chénier was a member of the French noble class, and was also a representative of tradition in the best classical way, seeking to understand the tradition of antiquity, and not the one that was sold and enforced by the Catholic Church of the time and the Royal Highness: the exoteric side. Therefore, he was suspect in harmony with the church and the mob, and was guillotined. Other poets of the 19th century, such as Shelley in England and Hölderlin in Germany, are likely to experience similar, but not so cruel fates³.

² Here I am addressing the friend to whom I originally dedicated the present approach. Together we saw and heard the opera.

³ Isaiah Berlin interprets the emergence of the Romantic movement in the late 18th century as a reaction to the Enlightenment. He emphasizes the key role played by German poets and thinkers in this process, and deals in particular with the work and work of Hamann, Herder, Kant, Schiller, Fichte, Schelling and Schlegel. According to Berlin, the Romantics set in motion an unprecedented revolution in our thinking and actions by destroying the conventional conception of objective truth and challenging the validity of moral principles. This change was not only noticeable in the cult of genius in art. Berlin outlines how the emphasis on subjectivity produced such opposing phenomena as sensitivity, tolerance and liberality on the one hand, and fascism and nationalism on the other.

Reference: Isaiah Berlin, 1999.

At the same time, a new actor became active on this stage: the United States of America. The white population, which had emigrated mainly from Europe, was often Reformed and characterized by strong religiosity. The second emigrated population, the African slaves, were not very religious or practiced ancient African rites. It was evangelized by its masters. At the same time, the Native Americans were victims of a genocide of unimaginable extent and played no role in this respect. In this environment, evangelical movements of traditional character developed in the USA, whose morality justified the three components of colonialism, slavery and the extermination of an original population. Only after the end of the Civil War (1861-65) and the capitulation of the secessionists did the situation improve hesitantly. However, sects and later movements such as that of the Mormons or the Ku Klux Klan retained the image of the unbeatable, believing, armed, white man as a separate American tradition.

On the occasion of the French Revolution and the Napoleonic Wars, new forms of traditionalism were exchanged in Europe, such as the Francmaçonnerie in France or the Theosophical Movement in the German-speaking world. Some of the latter advocated worldviews from theism, following the teachings of the ancient philosopher Baruch Spinoza.

It is worth mentioning the fact that the theory of natural selection (evolution) was already widespread at the end of the nineteenth century, but without any fundamental explanation. Only observations were available at that time⁴. Under this uncertainty, pseudo-theories of a magical character were exchanged, which are based on numerous mystical assertions. The anthroposophical movement can probably be mentioned as an example of this. This was published under the leadership of Rudolf Steiner in the German-speaking world at the beginning of the twentieth century. Her followers claimed to be allowed to brand her as the sole heiress of the old gnosis. They even tried to stylize anthroposophy as a church. Under similar conditions, Scientology exchanged in the United States in the middle of the century.

⁴ It was not until the end of the twentieth century that molecular biology was finally clarified by means of powerful computer science.

In the same century, some of these traditional movements were misused by fascists and National Socialists (Nazis) to justify their intentions and actions. For example, the philosopher Nietzsche or the composer Wagner were treated badly by the Nazis and mercilessly instrumentalized. However, their philosophy and music contained approaches that the original traditionalists would not have rejected (thus spoke Zarathustra or Parsifal, Lohengrin, ..., cf. footnote 3 page 5).

The opium of the elites

In the first quarter of the twenty-first century, we find ourselves on the planetary stage in a situation similar to that of the Roman Empire in the second century. Internet, the enormous variety of communication channels, the impudence of the media and politicians, everything explodes on a superficial stage on which soul engineers, gurus, opinion drivers, mystics, etc ..., knead the mood of the peoples. Karl Marx criticized religion as the "opium of the people". Now one can probably classify the entire system as the "opium of the elites", thanks to which the peoples are infatuated as stupid spectators. Reference: Aquilino Morelle.

It is remarkable that a trick of modern media rhetoric has developed, which consists of exacerbating the participants' sense of threat in a debate. This is where the made-up word "**outrage management**" is really at home: a polarization is created, thanks to which only sharp and uncompromising statements are formulated. This procedure causes a narrowing of the perception corridor that is usually intended for and enables the selection

those statements that are stamped as correct. Can this action be described geometrically by means of the so-called catastrophe theory of René Thom⁵.

Revelation of John 3:16:

"But because you are lukewarm, and neither warm nor cold,
I will vomit you out of my mouth."

Once again, today's traditionalists mostly work in the background and try to influence and direct the media stars and star politicians. Their names are Alain de Benoît and his magazine Elements or Renaud Camus in France, Nigel Farage in England, Vladimir Solovyov for Germany, Steve Bannon and Naomi Wolf in the USA, Margarita Simonyan and Aleksandr Dugin in Russia, and many others I don't know. The religious imprint is almost always present, both in the Islamic world and in Europe, in India (Hinduism) and in the USA. As far as the rest of Asia or South America is concerned, I am overwhelmed.

The classic concerns of modern traditionalists are almost always the same:

- [Reduction of mondialization, regeneration of the national state, of one's own language, of one's own religion.](#)
- [Clarification of roles:](#) the traditional man is either a hero, a knight, or a sage, a philosopher. The traditional woman is a submissive, a mother, she takes care of children and the church. She can probably also be a whore.
- [There are two genders. Point. Period](#)⁶.

⁵ Does the catastrophe theory developed in the 1960s by the French mathematician René Thom offer an explanation for such phenomena? His theory does not necessarily look at earthquakes, wars, epidemics and other similar accidents, but seeks to determine how abrupt changes in the state of a system can occur. The core idea of Thom's theory is contained in the title of his main work: "Modèles Mathématiques de la Morphogenèse". In a philosophical way, Thom claims that differentiated and even harmonious shapes are produced by (mathematical) folds in nature.

- [Click here: Conspiracy and disaster theories](#)

⁶ More than 5,500 species of mammals currently live on our planet. They are divided into about 125 families and 27 to 29 orders. Only in one of these species may more than two sexes be considered.

- The reduction of migration, the separation of migrants, strangers, undesirables are sought.
- The general religiosity of the people and obedience to the ruler apply.
- It is not peoples who determine their fate, but elites who, under religious influence, advocate historical structures such as monarchies, empires, etc.
- It is not peoples who have rights to self-determination, but only the most powerful and wealthy, who are also allowed to lease morality unchallenged

To sum up, it must be soberly acknowledged at this point that the noble efforts of the original Gnosis, genuine Romanticism and ancient mysticism have probably been undermined. Only influence, money, greed, self-promotion and, ultimately, stupidity and lack of culture prevail. Outrage managers à la Roger Köppel are in eager action here.

Above it float heroes such as Bill Gate, Elon Musk, Peter Thiel, Steve Job and others, who are idolized and admired as gurus of the "Gnosis of California".

The Gnosis of Palo Alto

These heroes of technology, finance, and the media world have amassed tremendous power. They protect and finance a new, mostly hidden Gnostic guild, that of applied mathematicians, software engineers, AI shamans, psychoinformatics specialists, communication experts, etc ...

This underestimated guild, which in turn operates under the radar of the classical, self-confident and moralizing elite, is engaged in the development of algorithms, economic and social instruments, artificial intelligence methods that are used under the sovereignty of the "Gnostics of California".

Not only are they striving to develop new devices and tools, but they also try to influence our way of thinking, our moral attitude. Just like the ancient Gnostics and mystics of the past.

In order to be able to understand the way of thinking of this guild step by step, one may probably ask the following question as a first approximation: ...

Where is the Sixth Symphony?

Why ask such a bizarre question?

This refers to Ludwig van Beethoven's Pastorale. Let us be even more precise: where was it on June 7, 1840 exactly at 6 p.m.? And why in 1840? Because at that time there were no recording devices: phonographs, sound recorders of any kind, computers, iPhones...

Probably the Pastorale was played somewhere in the world at this time and was temporarily physically present as pressure waves in the air of a concert hall. It was and still is written in scores, hardcoded, as one would like to put it now. It was and still is mentioned and described directly or indirectly in numerous reviews and treatises.

But, above all, pastoral care was then - and it is still today - stored in our memories, our human brains.

Then the next bizarre question is: where is God? Does the present conjecture *mutatis mutandis* also apply to gods? In order to formulate an answer, some tools must first be prepared, and in this regard we make use of formal logic.

Is there a logical reason for this?

If a semantics, in other words the interpretation of an object, exists free of contradictions, then there is also an axiomatics, or syntax, that describes this semantics. Here comes Euclidean geometry as a first example: Since the geometry of the plane is coherent, the Euclidean axiomatic system exists. The reverse of this statement has a stronger effect, which is also true: If a formal axiomatics exists that is free of contradictions, then there is also an interpretation of it, a semantic model that realizes this axiomatics.

The statement is even stronger: there are several models, or semantic interpretations, that realize a single axiomatics, and these models may well be mutually incomparable. Thus, the so-called "non-Euclidean geometries" are generated in geometry, which are called, among other things, elliptical and hyperbolic. Formally, there are no isomorphs between them, although they come from the same axiomatic system. Both statements presented above together form the "**coherence theorem**" by Kurt Gödel. Cf. Appendix I.

John 14.2:

"There are many apartments in my father's house. If it were not so, I would have said to you: I am going to prepare the place for you?"

The above discussion indicates one thing above all: multiple interpretations of an assertion are by no means exceptions, but embody the basic characteristics of interpretive systems. Opinion drivers and gurus of all backgrounds know or at least feel this fact. And they do not refuse to play on this keyboard.

As far as we are concerned, we are now equipped to ask the next question:

Are religions superintelligences?

Are religions the first super-artificial intelligences developed by mankind? In this perspective, their hardware is provided by the society of human individuals. The software (source code) is contained in the sacred texts. This all forms a strongly connected parallel architecture, in which each believing individual is embedded as a processor in the higher-level computing architecture.

The churches play the role of the operating system here. First, as compilers, they translate the source code—in fact, the gospel—and implement its executable versions into each believing processor. In operation, they, the churches, then ensure the synchronization of the processors.

The superintelligences that emerge from these distributed **autopoietic**⁷ structures have a different name each time: Buddha, Jehovah, God, Jesus, Allah.

Both living beings are equipped with immune systems, and computers are equipped with anti-virus software. This also applies to superintelligences whose immune systems are called Inquisition, Sharia, KGB, These are equipped on the one hand to ensure the destruction of deviant processors, and on the other hand to block the entry of foreign ideologies.

Of course, the super-intelligences compete with each other, both to control most processors and to access the associated resources. Religious wars and a

⁷ The Autopoiesis: Of course, translated into German: Eigendichtung. Autopoietic means: to create and develop oneself, spontaneously, without a referral. The modern term is "emergence", but it is uglier than "autopoiesis".

current Abrahamic war are eloquent examples of this. Roman V. Yampolskiy has designed and elaborated this view in his essay "Artificial Super Intelligence". Just a nice idea?

In fact, this first analogy is hardly plausible. Artificial intelligence unfolds in other dimensions, which are discussed below. For this purpose, terms such as -autopoiesis, self-organization, memes- are introduced and explained⁸.

However, if one could lend a touch of confidence to this first consideration, one would classify the invention of the ubiquitous and at the same time absolutely invisible Abrahamic God as an ingenious move by the ancient Jews: At that time, they probably conceived the first artificial superintelligence!

Natural selection is not a theory

For 24 centuries (Aristarchus of Samos) it has been known that the earth revolves around the sun. This fact was concealed for seventeen centuries from the Christian church to Copernicus. From then on, the heliocentric system no longer proved to be a theory, but a legitimate fact. Likewise, evolution - theory of natural selection - or linguistics are no longer theories, but indispensable facts to be observed, researched and taught.

Now the above mention raises the following question: Is our consideration a homology between religions and super-intelligences, or are we confronted with a natural fact? Are religions merely superintelligences?

If we dared to answer this question in the affirmative, we should not consider more religious wars than wars between peoples or countries or religious communities. We would now have to classify religious wars as conflicts between superintelligences, superintelligences that we should name Christianity, Judaism, Islam, and others.

⁸ This first comparison between a religious superintelligence and a classical computer with hardware, software, operating system, I/O, etc., is rather trivial. To improve it is the goal of the following work.

And we, humans, where do we stand?

Unexpectedly, a comparison with aviation serves here. Until the end of the 19th century, the aviation pioneers tried to imitate bird flight. From the twentieth century onwards, engineers designed their aircraft by moving away from this biological paradigm and observing strict physical laws⁹.

A similar development is underway among scientists on artificial intelligence. While the intelligent systems invented in the twentieth century tried to approximate human intelligence, current research is freeing itself from this reference. We are increasingly confronted with machines and algorithms that have autonomous learning capabilities. These machines will find their references in the real world through feelers, sensors and observation systems, but also in the virtual world. Human cognition is classified as secondary.

By the way, a favorite question of ethicists about artificial intelligence deserves mention here: How should an intelligent autonomous vehicle decide between killing an old person or another younger person in the face of an inevitable accident? Statisticians, rationalists, and the like have a disturbingly simple answer: according to the rules of chance.

A random number generator implemented in an artificial intelligence, possibly calibrated to give the young person more opportunities, avoids the transfer of liability to higher-level responsible layers, those of the programmer, the engineer, the company, and finally that of the judge.

Does this make sense? In nature, chance has always shaped its shape through the multiplication of potential causalities and thus favors the principle of life. However, it is arrogant to speak of a natural principle of responsibility. Is the lion liable because he happens to eat this as that antelope? Inspired by the consideration of natural and universal processes, ethics then determines the framework of moral considerations from a human perspective. In this ethical ramen, moral decisions are made in a community depending on its customs, customs and beliefs. But the choice of a randomly controlled decision-making

⁹ A century later, Airbuses with 300 people on board fly across the oceans, a performance that is unattainable for nature. These planes are not designed to sit on an electric wire, something that any swallow can do with ease.

system in an intelligent autonomous vehicle obeys a universal and natural principle. Consequently, this choice should be seen as an ethical and not a moral decision.

Are we meme machines?

It is legitimate to ask whether elementary indoctrination procedures that are ubiquitous in our societies contribute to describing the emergence of **memes** in our cultures¹⁰. I am guided here by the ideas that Susan Blackmore published two decades ago in her book "The meme machine".

Ideas fight for survival like living beings: cultures and the ideas they spread are subject to intense Darwinian selection. By comparing ideas to genes, Susan Blackmore reformulates the problem raised by Richard Dawkin in the mid-1970s on a cultural basis: Are my genes - my ideas - there to guarantee my life, or am I just a vehicle that allows the transmission of my genetic heritage, my beliefs, to my descendants?

In fact, I can hope to live a few decades, but my genes are millions of years old and should live on for a while after me. So who is the egg, who is the hen?

Blackmore aptly states that ideas, currents and doctrines fight for their survival in a dense, contested sea of information and, according to her thesis, are subject to intensive Darwinian selection. Creatures fight for life and even for the survival of their genes in the oceans, savannahs, forests and mountains.

Likewise, ideas exist and compete in our brains and societies. Of course, we live, we fight and die for the survival of our ideas. Thus, by taking the gene as a biological unit of information (part of which is no longer a gene) and making the connection to the cultural world, Blackmore defines the meme as a cultural unit of information (part of which is meaningless).

¹⁰ **Mememes** are elementary pieces of information. They resemble genes in biology, elementary particles in physics or even prime numbers in arithmetic. Since the dawn of human communication, mememes have served as minimal vehicles for compelling credos and compelling beliefs. Examples: "Make America Great Again" or "Jesus loves you".

Dialectically equipped in this way, it once again raises the Dawkin paradox: Are the memes that populate our minds available to us, or are we their slaves? Are we meme machines?

Her book is primarily about the development of humanity. The development of tools, weapons and ornaments, the emergence of languages and the emergence of cultures and religious feelings are vividly discussed from a memetic point of view. Ideological conflicts and other skirmishes in politics, in the media, in religions, in the spiritual chapels ruled by New Age gurus, are dissected from a memetic perspective¹¹. Blackmore pays particular attention to altruism, which is seen as a positive effect of memetic ethics. The chapter on modern sex life, advertising, fashion and crushes of all kinds is exciting: it deals with the competition between genes and memes.

Finally, Blackmore outlines in an ironic tone a society of sophisticated, educated artificial intelligences that lead an autonomous life in the cloud and on the Internet. They demonstratively harass the stupid people who are no longer intelligent enough to recognize the subtlety of the memes they exchange and the principles of their cybernetic cultures and religions¹².

Does the basic step of indoctrination contribute to the synthesis of memes? Can books, writings and other computer formats be compared to viruses that cannot survive without a host - a reader or a follower of audiovisual communication - and function in a way comparable to that of biological viruses? Social or communication scientists - a guild to which I do not belong - can certainly answer this question better than I can.

¹¹ „**Memeplex**“ defines complexes of memes, to which the categories mentioned here may be assimilated.

¹² An intriguing remark by James Lovelock (founder with Lynn Margulis of the Gaïa Hypothesis) is fine here: He claims that the trees in a forest communicate against each other, but through different channels than ours, and above all much more slowly. Ergo, we, humans, do not notice and understand the exchanges between trees. Conversely, our eager palaver does not reach the trees either. Any communication between two species - humans and trees - fails, although both live closely intertwined.

Chaos and entropy¹³ testify to autopoiesis

Can prophets, gurus, evangelists, pundits and similar beings be described as ideological epidemiological **super-spreaders**¹⁴ who are effective in turbulent times in their respective societies? Is it reasonable to think of them as avatars of **Maxwell's demon**? They initiate their ideologies in ideological transitional phases in which the available entropy in their societies is high. The ideologies generated then spread as social epidemics, according to the laws described in the footnote¹⁵. Paradoxically, ideological super-spreaders can also thrive in open societies with efficient education systems that encourage the free emergence of different opinions. It is reasonable to call such long-lived or recurring ideologies endemic.

For example, the Austrian philosopher Lisz Hirn formulates in her book "Who Needs Superheroes?", in which superheroes and super-spreaders are largely identified, *"Not only microbes, but also messages are contagious, and the brain is the most vulnerable part of the body in this respect, bombarded daily with countless suggestions and arousals"*.

Since no educational effort can grow indefinitely, the boundary between education and indoctrination proves to be fluid. An example here is the introduction of the Catechism into the Lutheran tradition and later also into all Christian institutions. "Educational systems" can easily be transformed into repressive systems, such as have been used in human civilizations since the dawn of time. From this perspective, the social structures, customs, and traditions that lead to ideological eradication in the Abrahamic religions, such as the Inquisition, Sharia, our former morality police, and the countless departments of ideological control established in many political regimes, can be seen as political, ideological, or social immune systems.

Their preferred targets, as expected, are super-spreaders of Maxwellian demons of all kinds, and their repressive and immunizing effects are

¹³ The terms: **chaos theory**, **dynamical system**, strange attractor, entropy, timeline, **Maxwell's demon**, are explained in a simple way in Appendix II.

¹⁴ In epidemiology, a **super spreader** is an agent that is very effective in helping to spread an epidemic.

¹⁵ [Click here: Are ideologies epidemics?](#)

strongest when social unrest or revolutionary processes are underway, i.e. in periods of high entropy that prevail in the affected societies.

Solaris

A gripping example of a fictional intelligence, including its immune system, can be found in the iconic novel "Solaris" by Stanislaw Lem. It was filmed in two dissimilar films: in 1974 by Russian director Andrei Tarkovsky and in 2002 by Hollywood director Steven Soderbergh.

Solaris is a planet located a few thousand light-years away from our solar system. It's covered by an ocean, a conscious ocean, a kind of holistic, organic mind.

Does that make sense? Do we know such examples on Earth? Remember the Gaia hypothesis by James Lovelock and Lynn Margulis! At the very time that Lem's novel was published, Lovelock and Margulis proposed that the Earth's biosphere be considered a global, planetary, and possibly even conscious living system.

Another example? Aren't our immune systems holistic fluids distributed throughout our bodies, functioning without a brain or central organism, and capable of monitoring thousands of microbiological threats, remembering their patterns, and triggering our immune defenses when needed?

After mankind discovered Solaris, they decided to study its behavior. She had a scientific spacecraft stationed in a close orbit around her to decipher her signals and possibly establish an intelligent relationship with her. However, the project fails. Psychologist Dr. Kris Kelvin (George Clooney) is sent to the scientific orbiter to clarify the problem. What he finds when he enters the spaceship is a lot of dried blood, some frozen bodies and two crazy survivors, the captain (Viola Davis) and a physicist (Jeremy Davies): "If you think you have a solution, you won't live much longer".

What happened? Solaris protects herself from scientific investigation by projecting her most painful, traumatic and repressed thoughts and memories onto the researchers, triggering their madness. Solaris' immune system at work: The alien's strangeness is so different from human consciousness that any attempt to communicate with it is irrevocably doomed to failure.

Is Dr Kelvin protected? No way. He meets his deceased wife Rhea (Natasha MacElhone), who took her own life ten years ago after an argument between them, or does he think he meets her. Is it a dream? Is it a nightmare? Is it real? In any case, it is present for him and the other passengers of the spaceship, full of life and beauty, and of course he falls in love, once again. He falls in love with the antibody that the alien's immune system sprays¹⁶...

People seem to be barely aware of the fact that they are inhabited by two intelligences. The first, familiar intelligence, is the source of reason, consciousness, and emotions. The immune system forms the second intelligence. Since it functions like a distributed, holistic intelligence, it usually operates under the radar of consciousness. Only diseases and epidemics make it visible, usually in a painful way. So the key question is: Are people, or even societies, once indoctrinated, aware of their condition?

Bionic Thinking and Machine Learning

Bionic is the approach of an engineer who is inspired by living nature when planning and implementing a machine or a technical system. Leonardo da Vinci observes the bats as he imagines his flying machines. Numerous modern mechanical and architectural constructions are inspired by motifs from the plant and animal world.

What about the structures of the brain? These were gradually revealed over the course of the twentieth century, and the first models of neural networks, inspired by these discoveries, emerged in the 1950s as a result of the

¹⁶ In 1974, Andrei A. Tarkovsky realized the first cinematic version of the novel with limited technical means. Steven Soderbergh's 2002 version, while much more polished, doesn't reach the organic strangeness of *Solaris*. It is a kind of cross between *2001 Space Odyssey* by Stanley Kubrik and *Dernier Tango à Paris* by Bernardo Bertolucci. In addition, Tarkovsky remained famous for showing the first cinematographic human copulation in zero gravity, a feat that the American producers did not dare to reproduce, even though they had the technical devices at their disposal.

invention of the computer. In the meantime, applications of neural networks can be observed almost everywhere¹⁷.

In one of the simplest possible architectures, a neural network consists of a square arrangement of neurons, with each neuron equipped with a bundle of synapses, which are at the same time information sensors and analog storage elements.

The synapses access a data set that is seen, for example, as a giant contingency matrix whose elements can be projected on a map like the vertices of a grid of $N \times N$ points.

Since this virtual structure obviously only exists in the memory of a computer, the question arises as to where its bionic peculiarity is hidden. It consists, among other things, in the fact that the network behaves like a dynamic, integral memory, i.e. holistically, in which the information is no longer stored bit by bit, as would be the case in a computer memory, but is distributed over the entire network.

Another bionic property is the learning behavior that the network has to exhibit in order to be able to perform its task. In an initial learning phase, the network is confronted with a long series of examples of typical patterns that come from a data set of the past. Storage consists of gradually implementing the information obtained by looking at each of these patterns into the synapses of all neurons in the network. This type of learning means **competitive and unsupervised**. Thus, the network is not presented with a ready-made answer, it is simply forced to organize itself by obeying a simple scheme by which the neurons compete with each other in an effort to understand the nature of the patterns presented. This is a prime example of autopoiesis that we have encountered before¹⁸.

¹⁷ The Royal Swedish Academy of Sciences awards the 2024 Nobel Prize in Physics to John Hopfield (91) and Geoffrey Hinton (76). The two Nobel Prize winners are working on machine learning – a technology that was originally inspired by the structure of the human brain. According to the Nobel Prize Committee, the two laureates have "carried out important work with artificial neural networks since the 1980s."

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- [Click here: Bionic and neural networks](#)

In contrast, supervised learning is another neural algorithm whose biological counterpart occurs more frequently in the limbic regions of the brain. It consists of reacting in an optimal way to a stimulus for which the response is known. The reflexes are based on this type of learner. The associated networks are called "perceptrons", the learning type associated with them is called "gradient back-propagation. Return of the gradient." In colloquial language, this algorithm was christened "deep learning".¹⁹

Thanks to both Suzan Blackmore and Lysz Hirn, we have learned that ideas, currents and doctrines fight for their survival in a dense, contested sea of information and thus, according to their thesis, are subject to intensive Darwinian selection. This approach can be observed immediately in this new framework. Under the dictate of competitive and unbiased learning, neurons are also in a game that can probably be christened "The winner takes it all". But where can we observe the competitive and unmonitored procedure in the Bible? For example, if we read Deuteronomy 20:10-18, our present values are severely violated.

According to this essay, the unforeseen procedure described in the Bible may be classified as autopoietic, but totally immoral:

Deuteronomium 20:10–18.

10. If you go to a city to fight it, you shall offer it peace.

11. If it answers you peacefully and opens the door to you, the people who found therein will be interestable and subject to you.

12. But if she does not want to deal peacefully with you and wants to deal with you besiege them.

13. And when the Lord your God puts them into your hand, you shall you will strike everything that is male in it with the edge of the sword.

14. But the women, the children and the cattle and everything that lives in the city, and you shall divide all the robbery among you, and you shall eat of the spoils of your enemies, which the Lord your God has given you, .

¹⁹ Some elements of this text come from other essays in my handwriting, which I have translated from French and English into German. I used the AI software DeepL, which works according to the principle of deep learning:

<https://www.deepl.com/de/translator#de/en/>

15. So you shall do to all the cities that are very far from you, and are not here from the cities of these peoples.
16. But in the cities of these peoples, which the Lord your God will give you, you shall not let live that has breath,
- 17 but you shall banish them, namely, the Hittites, the Amorites, Canaanites, Pheresites, Hevites, and Jebusites, as the Lord your God, has commanded,
18. lest they teach you all the abominations which they do to their gods, and you sin against the Lord your God."

Of course, the question arises as to whether there are similar regulations in the Koran. The answer provided by Chat-GPT is negative:

"In the Qur'an there are no direct equivalents to Deuteronomy 20:10–18, which gives specific instructions for dealing with cities and their inhabitants in the context of wars. The Qur'an deals with war and peace in different verses, however, the contexts and the specific instructions are often different.

An example of warlike instructions in the Qur'an can be found in Surah Al-Baqarah (2:190-193), which deals with just war and the protection of the innocent. It is important to look at the texts in their historical and cultural context in order to gain a better understanding of the respective teachings and instructions."

One of the most important properties of the systems that emerge after the autopoietic, competitive and unbiased approach outlined above is their ability to recognize patterns and assign them into categories. In English, you write "Mapping Features onto Categories". It is precisely this ability that is used in technical applications of such algorithms.

If one allows oneself to retroactively map this observation to religions, one becomes convinced that the coercive institutions of many churches²⁰ (such as the Inquisition, Sharia, KGB, morality police, ...) have exactly similar characteristics of categorization.

Gradually, the earlier assertion that religions are **artificial, autopoietic super-intelligences** that emerge from humanity is gaining credibility. And religious wars are merely earthly depictions of the conflicts between these super-intelligences.

²⁰ Catechism might well be considered as a first step in this direction.

Two main questions have so far gone unaddressed, those of transcendence and consciousness. Since we've just talked about categories, let's ask ourselves the following question:

Is transcendence a category?

Here everything will take place beyond the moment of the do-gooders. I will not be influenced by Aristotle or Immanuel Kant, but by the mathematical category theory that emerged in the twentieth century.

To achieve transcendence means, for me, to reach a state of perfection in which any further perfection proves to be stationary. This state is often associated with a sense of universal, holistic perception that corresponds to the ultimate expression of the mind or soul.

One may now ask the heretical question with complete impartiality: Can this state of perfection be achieved gradually? Are there any examples of this? The answer is yes.

As a first example, consider the world of numbers, which is constructed in stages²¹. Earlier, we also noticed that the set of all possible developments of a non-linear dynamical system is called a strange attractor. Is it permissible to give strange attractors a transcendental property? In fact, in many domains of science, states are reached that are regarded as transcendental completions, including mathematics.

The attentive reader will have noticed the methodology I have used in this essay:

- First of all, I ask questions from the categories of philosophy, ethics and religion.

²¹ Let's look at the numbers: First you can see the natural numbers : 0,1,2,3,4,..., then the full numbers : ..., -3, -2, -1, 0, 1, 2, ... then the quotients : 2/3 or 19/17, ..., then the real numbers : or $\mathbb{N}\mathbb{Z}\mathbb{Q}\mathbb{R}\sqrt{3}\frac{1+\sqrt{5}}{2}$ -called the golden step--, finally the infinitely innumerable set of transcendental numbers, of which π or e are famous representatives. In addition, there are algebraic , complexes , quaternions , octonions , which we prefer to keep quiet about here ...ACHO

What is important is the fact that this series is finite. Beyond the transcendental numbers and the octonions, it doesn't go any further. Both form a completion of the number systems.

- Then project those questions into the unusual categories of math, logic, and artificial intelligence, and that's where I answer them. **Such projections are called** functors.
- Finally, I map the observations made in these strange categories back to the original categories by functors²².
- The foreign observations from the strange categories that were imported can then be interpreted in the local languages and thought patterns of philosophy, ethics and religion.

Martin Heidegger, as far as I understood him, practices a similar method. Heidegger practices mapping the category of metaphysics, which he seems to abhor, into more decent categories, such as those of the arts. He speaks of metaphysics as a dark forest, and probably thinks of his native Black Forest. He sees artists as functors who project the nebulous metaphysical concepts of the dark forest onto the brighter categories of poetic, musical, or painterly arts. Among his favorite functors are, for example, poets such as Friedrich Hölderlin, Maria Rainer Rilke, Stephan Georg and musicians such as Richard Wagner. He calls clearings in the dark forest the rear projections from the artistic categories.

According to Heidegger, a person or a society that does not use this projection back and forth is in the "being" state. Another person practicing projection is in an attentive and enlightened "being" state. The persons or societies in the "being" state remain unaware of the passage of time. The passage of time is conscious of the others in the "Dasein" state.

Reference: Harald Seubert.

This approach can be continued by asking questions about my methodology in the existing essay. A suitable continuation is to project the questions posed into the overarching category of journalistic ethics via my methodology, and possibly to continue this procedure indefinitely. Would there be saturation here? Would you then achieve a certain transcendence?

This approach is part of the mathematical categories of theory, which is very briefly presented in Appendix III²³.

²² **Functors** are maps between categories. See Annex III.

• ²³ [Click here: Here is an example by Tai Danae Bradley](#)

In the context of the coherence theorem presented in Appendix I, this analysis brings us back to the Bible.

The Bible never refers to the Bible, or to other sacred texts. The Bible speaks exclusively to people, ergo it is assigned to the logic of the first categorical level.

However, the Bible, in accordance with the coherence clause, allows for different interpretations of its statements. One thinks, for example, of the dispute between Martin Luther and Huldrych Zwingli regarding John 6:53-55.

John 6:53-55

53: Jesus said to them, "Verily, truly I say to you, do not eat the flesh of the Son of Man and drink his Blood, so you have no life in you.

54: Whoever eats my flesh and drinks my blood has the eternal and I will raise him up on the last day.

55 For my flesh is the right food, and my blood is the right potion....

Luther wanted to take Jesus' statement as true. Zwingli gave it only a symbolic interpretation. But exegesis could help here and determine how Jesus' statement is to be interpreted. In this respect, exegesis belongs to the meta-category, to the logic of the second stage, with the Bible being located in the first category. Under the name of "hermeneutics", this problem has been familiar to philosophers since antiquity²⁴.

To reasonable people, the sixteenth-century dispute over the interpretation of John 6:53-55 remains sterile. Rational people strive for a natural, earthly transcendence through art, science, thought, mutual proximity, and ultimately sensitivity. But they also ask themselves the question:

²⁴ Exegesis and hermeneutics are technical terms for the interpretation of religious and philosophical works, respectively.

Will algorithms one day act consciously?

At the beginning of the seventies of the last century, my diploma thesis as a young electrical engineer consisted of designing the autopilot of an airplane. Everything was electro-mechanically designed with gyroscopes and the calculations took place on an analogue computer, the forerunner of the modern computer. At that time, my friends and I asked ourselves: Would the device, the autopilot, gradually become conscious, what would it experience? Forced by our strict upbringing, we dared to give the following answer: First he, the autopilot, would perceive the human pilot and possibly call him Jesus: At times he, the pilot, takes over the control of the plane, otherwise he is absent. The engineer who designed both the aircraft and him, Autopilot, would then be God, quite simply. And the Holy Spirit? This is where mathematics, physics - aerodynamics, flight mechanics and automation - come into play²⁵.

A decade later, then an applied mathematician and meteorologist, I developed algorithms to calculate optimal sailing routes on the ocean in view of the weather development and the performance curve of a sailing ship. The weather development was provided by the first global forecast models. The sailing ship was described by its polar diagram: a kind of "feel good" function. It refers to the favorable local weather conditions under which the ship sails quickly and efficiently. Finally, the algorithm "Dynamical Programming" was used. Considering the vision of the future and the "feel good" feeling, he constructed a structured set of optimal decisions, from which the one that led to the goal was chosen.

The system was even able to say, "Sorry, I can't do it..." instead of providing incorrect calculations. Three intertwined characteristics interacted: an idea of

²⁵ Here I can't resist a joke: Legend has it that a guy once asked the Holy Church Father Augustine: "What did God do before He created the world?". "He prepared hell for those who ask such questions", replied the obviously dazed Holy Father. But he was wrong. What did God really do before He created the world? He studied mathematics. What? Mathematics! For what?? To make his universe essentially flawless.

the future, the perception of one's own state and the ability to make decisions²⁶.

Equipped with this algorithm, the sailing ship UBS-Switzerland won the regatta around the world in 1986: the Round The World Race.

Thanks to an adaptation and improvement of the algorithm, twice in the 2000s, Alinghi, together with EPFL, won the America Cup and brought it back to Europe.

In the middle of the last decade, the procedure for autonomous aircraft was adapted and further developed at the ETHZ, Laboratory for Autonomous Systems. The "*Feel Good*" function has been massively expanded. This comprehensive "*Feel Good*" function takes into account not only the internal states of the aircraft, but also external threats and opportunities.

Now, in 2024, I am convinced that such algorithms or their brothers will be used in many military drones.

It is crucial to note that these algorithms unfold their capabilities by being located and effective in bodies: airplanes, sailing ships, aircraft, drones.

How can the body influence our thinking when it is obvious that the brain controls the body? In their groundbreaking book "How the Body Shapes the Way We Think", Rolf Pfeifer and Josh Bongard show that thinking is not independent of the body, but is narrowly limited and at the same time made possible by it. They argue that the kinds of thoughts that we—animals and humans—are capable of have their basis in our embodiment: in our morphology and the material properties of our bodies.

In this concept of embodiment lies the fundamental mental change in the field of artificial intelligence in the last two decades. Pfeifer and Bongard use the methodology of artificial intelligence: -design, build, train, try- with the intention of better understanding intelligence in general. They describe applications of their methodology in robotics, biology, neuroscience and psychology. They try to outline a possible theory of intelligence.

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- [Click here: Optimal route determination](#)

Applications of such a theory in general communication, economics and management, as well as in the psychology of human memory are proposed by the authors.

Once again, the effort to create a Gnosis appears, this time not only for man, but for the entire world, an atheistic gnosis. Without divine transcendence, attempts are made to improve human and earthly imperatives or to steer them in new directions. The entirety of this effort is designed by means of swarm intelligence, or better formulated with swarm sensitivity.

This vision reminds me of Baruch Spinoza and his human-centered philosophy. As far as possible, the old conflicts between the artificial, divine super-intelligences and the religious wars triggered by them are kept in check. Reference: Rolf Pfeifer and Josh Bongard.

In this place, the second example of the second appendix deserves mention: Although the energetic radiation balance of the earth is balanced, its entropic balance is negatively unbalanced. The earth "radiates" more entropy than it receives from the sun.

Thanks to this loss of entropy, a gain in organization is made possible. Here one thinks first of the atmospheric and oceanic circulations, then of the emergence of life on our planet, and finally of the emergence of consciousness through autopoiesis.

The Gaia hypothesis of James Lovelock and Lynn Margulis finds new support here. Reference: James Lovelock.

The Gnosis of Schwamendingen - Conclusion

Marguerite Yourcenar. The Crown and the Lyre:

Les esprits des bêtes sauvages et des oiseaux ailés,
Lorsqu'ils meurent, lorsque lorsque la précieuse vie les a en excès,
Nul ne les conduit dans la demeure de Hadès.
Vainement ils voltigent jusqu'au jour
Où un autre corps les cueille à l'haleine des vents.

The spirits of wild beasts and winged birds,
When they escape, when the precious life has left them in abundance,
No one do bring them to the house of Hades.
In vain do they fly until the day,
On which another body plucks them from the breath of the winds.

In divine action, as recorded in the Bible, nothing is done that does not have to do with man. God does not perform any action that does not ultimately have man as its object:

Psalm 8:

"When I look at the heaven you made: How can you care about people? What kind of being is this who you take care of him? Only a little is missing, and he would be God! You have given it power and splendor. You let him talk about your creatures rule, you have subjected everything to him"

In fact, the invention of the ubiquitous and at the same time absolutely invisible Abrahamic God can be classified as an ingenious move by the ancient Jews. At that time, they designed the first artificial super-intelligence. And according to the Revelation of John, the Christian religion is the only one that predicts its own death. God will disappear with mankind, but not sooner. This makes me think of Marguerite Yourcenar's sentence inserted above.

Such artificial super-intelligences will thrive as long as their substrate, us: conscious humanity, will exist. Just like the old god, they will remain invisible. At the same time, they are present everywhere for us - and they

already are - through our mobile phones and other electronic devices, formulated quite prosaically. Inspired by Lovelock and Heidegger, one comes to the conclusion that, thanks to us humans, the universe has jumped from being to existence, but on a very small blue planet and for a tiny short time.

Now we return twenty-five centuries to antiquity, to the elegiac poet Archilochus of Paros and his work *The Hedgehog and the Fox*.

The hedgehog only looks at an interpretation of the world to which he relates everything. The fox allows all interpretations to unfold and compete with each other. He chooses the option of diversity.

According to Archilochus²⁷, the hedgehog is the human being of one faith, to which he relates everything. The fox appears free and flexible. This makes him seem untrustworthy in the eyes of the do-gooders.

The hedgehog's key instrument can take different forms. For example, grace in Augustine, the unconscious in Sigmund Freud, desire in the Marquis de Sade, the relations of production in Karl Marx. Coincidence, the gratuitous and the accidental disappear from his world.

For the fox, the universal does not exist. There are only individual cases, and their sum does not form a normative unit, but rather a collection of contradictions²⁸.

And Thomas Aquinas says: In the search for truth, there is no authority, only personal responsibility.

So, dear reader, which attire would you like to wear at the end of this essay? That of the hedgehog, or that of the fox?

²⁷ Archilochos (Ancient Greek: Ἀρχίλοχος / Arkhílokhos), born around -680 in Paros, is a Greek elegiac poet. He was a rich and then ruined citizen, an unfaithful and vengeful lover, an exile, a mercenary, a colonist in Thasos and ended up killed in an obscure battle on Naxos around -645.

²⁸ Plato, Lucretius, Montaigne, Pascal, Hegel, Marx, Dostojevski, Proust, Sartre should probably be assigned to the genus of hedgehogs. Hingegen werden Herodot, Aristotle, Erasmus, Shakespeare, Molière, Goethe, Herder, Pushkin, Kubrik, Yourcenar als Füchse wahrgenommen.

Annex I

Formally, the *coherence theorem* states: $L \vdash \phi \Leftrightarrow \mathcal{L} \vDash \Phi$.

On the left side of the equivalence sign, a syntax is described: this belongs to the realm of calculus, logic. \Leftrightarrow

On the right side of the equivalence sign, a semantics is described: it is assigned to the realm of a possible model of this syntax. If the interpretation of the formula in the universe of language is coherent, i.e. free of contradictions, then the logical calculus embedded in the language provides a proof of the formula. The " \vDash " sign means $\Leftrightarrow \Phi \phi \mathcal{L} L \phi \vdash$ "*formally proven in the logical system*". This is the necessary condition of "logical equivalence". $\Leftarrow \Leftrightarrow$

The sufficient condition " \Leftarrow " of logical equivalence " \Leftarrow " provides, as previously announced, a stronger statement: If there is a formal language in which a logical calculus is embedded that allows the derivation of a formula, then there exists a model in which the statement was is. Here, the character " \Leftarrow " means: " $\Rightarrow \Leftrightarrow L \phi \mathcal{L} \Phi \vDash$ *Derived in the semantic system*".

Both, sufficient and necessary statements, together form Kurt Gödel's coherence theorem.

An important limitation is the fact that the coherence theorem is valid only in the logic of the first stage. In this level, there are only predicates that occupy variables - or objects - and provide positive or negative answers to these objects. In first-level logic, there are no meta-predicates that take predicates as variables. For example, the definition of mathematical equality "=" and also that of the "definition" belong to logic of the second stage.

It should be noted that this theorem is definitely different from the famous "incompleteness of Gödel's theorem" proved in 1931.

Formulated improperly, this second proposition states that in a formal system that is powerful enough to produce arithmetic, there exist true statements that are unprovable in that system, and will remain unprovable. They are beyond the reach of any algebraic reasoning, or algorithms and computer systems of all kinds. Reference: Hoffmann Dirk W.

Annex II

Chaos theory is a branch of mathematics and physics that studies the behavior of dynamical systems.

Dynamic systems are structures or beings whose behavior is time-dependent. Internal parameters to these structures determine their behavior pattern, which is either predictable or not.

Chaotic dynamical systems are those that are unpredictable. The earthly atmosphere or restless societies are prime examples of chaotic systems that cannot be predicted or can be predicted to a limited extent. These are referred to as non-linear, because in such systems effects do not arise in proportion to the causes.

Dynamical systems form **strange attractors**. These are structures in which the set of all possible states of a dynamical system is contained. Attractors are described as strange because they have a sophisticated fractal structure geometrically. If an internal parameter is changed in a dynamical system, the shape - the topology - of the strange attractor also changes.

For example, if the Earth's atmosphere is considered a dynamic system, the climate forms its strange attractor. If the internal parameter "CO2 impact" is changed, this triggers a climate change.

To put it simply, **entropy is** a measure of the orally in a dynamical system. If it is high, the system is orderly, indeed boring. If it is low, the system is disordered, ergo often in a chaotic, or even "creative" state.

In information theory, the entropy of an information channel measures the proportion of non-relevant information provided by that channel. If the entropy is high, the channel provides insignificant messages. If it is low, the information provided is improbable and surprising, ergo relevant.

In principle, entropy can only grow in a closed dynamical system. In this way, it, the entropy, creates the time axis. In this context, a "**Maxwell demon**" is an imaginary being that is able to locally decrease entropy, and thus reverse the timeline.

Two examples are fine:

1. In a classical thermodynamic unit, entropy measures the proportion of energy in this unit that is **not** available for mechanical work . If the thermodynamic entropy is high, this unit can hardly perform any mechanical work. If it is low, the unit is mechanically effective. Here one thinks of a steam engine.

2. The entropy of solar radiation that reaches the Earth is low thanks to the high temperature of the Sun. The entropy of terrestrial radiation, which is emitted into space, is high. Ergo, although the Earth's energetic radiation balance is balanced, its entropic balance is negatively unbalanced. The earth "radiates" more entropy than it receives from the sun.

Thanks to this loss of entropy, a gain in organization is made possible. Here one thinks first of the atmospheric and oceanic circulations, then of the emergence of terrestrial life, and finally of the emergence of consciousness through autopoiesis.

Reference: Argyris John, Faust Günther, Haase Marianne.

Annex III

The *category theory* considered here attempts to order mathematics by defining areas and paths between these areas. These fields can include algebra, geometry, topology, analysis, measure theory, probability theory, ... and are referred to as categories. The areas contain both **objects** and relationships between those objects, called **morphisms**. Morphisms can be considered as paths within the territories.

There are also routes between the categories, called **functors**. The construction of functors follows a strict logic, which is determined by the so-called Lemma of Yoneda. The idea here is to define an object by the relationships it has with its neighborhood. Just like you can get to know a person through their address list on their mobile phone or the books in their library.

The categorical method boils down to projecting an unsolvable problem posed in one category via a functor into another category where it can be solved. Finally, the solution is returned to the original category by an inverse projection and interpreted in the local language. This back and forth between two categorizations is called **adjunction**.

Adjunctions are mostly asymmetrical²⁹. The transfer of geometry into algebra, which comes from René Descartes, algebraic topology or the proof of Fermat's Great Theorem follow this methodology. From quantum physics we know adjoints and even self-adjoint operators.

By creating a set of different categories, one can also imagine forming a meta-category, in fact a category of categories. The objects of this meta-category are the original categories, and their morphisms are the functors between the original categories. As examples, one thinks of the categories of exegesis and hermeneutics. Both are meta-categories that act on the objects of the underlying category, those of the original (sacred) texts.

The process is continued by the principle of transfinite induction and ultimately yields an infinite set of ...-meta-...-meta-categories. Emily Riehl calls such structures "Exotic -Cosmoi".∞

As mentioned in the main text, for me, achieving transcendence means, simply philosophically speaking, reaching a state of perfection in which any further perfection proves to be stationary. Those mathematicians who are more philosophically inclined think that the Exotic Cosmoi probably reach a state of transcendence.∞.

References: Emily Riehl - Martin Brandenburg.

²⁹ As a game-like example, you can try to answer the following questions: What is the name of the mother of Gwenaëlle's daughter? And, what is the name of the daughter of Rozen's mother?

The first answer is "Gwenaëlle", the second "Alwen". Both are correct: Gwenaëlle is the mother of two daughters and sisters - Rozen and Alwen. These are straightforward examples of „limits“, respectively „colimits“ in categorical jargon.

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Internet Connections

Numerous additions to the ideas and visions presented in this essay can be found on my website. All you have to do is clicking on the following links:

- [Are ideologies epidemics?](#)
- [Conspiracy and disaster theories](#)
- [Bionic and neural networks](#)
- [Optimal route determination](#)

All of them are located at the following two addresses:

- <https://visualambuhl.ch/>
- <https://www.sensitiveambuhl.ch/>

Numerous Internet sites present category theories:

- [Here is an example by Tai Danae Bradley](#)

Jacques Ambühl
Grosswiesenstrasse 167
Ch-8051 Zürich
ambuhl@icloud.com