

## Conscious Avatars: The Basic Paradigm for ACHI

Adam was the first hermit in history. He lived in a garden that had a wall around it. In his time, such an enclosure was called "pairidaeza," i.e. paradise. Adam was not alone, however. From outside, he was watched by God, who had created him as well as the garden and everything in it. - Knowing of this Big Brother watching him, Adam behaved himself and obeyed to God's orders. One day, he trespassed, and was dismissed. Ever since, he tried to rebuild that garden, only to find this a task too much for him. His few times of happiness, though, were those when he appeared to be close to success, at least in his imagination. Building those walls again has become the goal in his quest for salvation.

The photo shows Rosamaria Albach-Retty, a German movie star of the 20th century, better known by her alias "Romy Schneider." Her mother had been a movie star before her, and on her father's side the line of ancestral actors reached back onto the times of Maria Theresa of Austria. What sounds like a well prepared career, though, turned out to be a personal lifetime burdon. Her father neglected the family, and finally quit it for good. It appears as if he from his dynastical point of view considered his marriage a misalliance. His daughter, who was educated at a boarding school, he remembered, if at all, only on certain occasions like birthdays or Christmases by sending a gift he had got for nothing.



Consciousness is an highly abstract operator. It is not an emergent property of functionally related modules, each of which would do something specific, with the whole producing an output unpredictable from the constituents. It is energy. In scrutinizing the brain for a drive that makes the brain conscious, therefore, one has to look for modules the output of which is abstract, and is as unakin to anything qualitatively describable as is materially feasible. This leads to the cerebellum as the drive that makes the brain conscious, because all the cerebellum puts out are time differences, which, in turn, being the most abstract qualities physiologically possible, delineate the border between modular output as such and sheer stochastic events.

This author uses - and understands - "consciousness" and "human consciousness" as synonyms. Why, then, aren't infrahuman species conscious, although they do possess cerebella? Because, brains are built like McIntosh computers: drive, or kernel, and operating system are one big lump, with the components designed for each other. Replacing a dog's cortex by a human one just wouldn't make the dog conscious. The dog's drive, its cerebellum, would lack the power to accelerate that big a cortex to the conscious level. - This brute paradigm leads us up to the point: Physiologically, the output of any brain module depends on which higher level module that output is for. The output of the cerebellum, taken as such, is meaningless, but only appears so due to its abstractness. Evaluated as output that is input to a target module, i.e. the cortex, and only then, it takes up recognizable forms. These forms can be described mathematically. The cerebellum - cortex - interface is the locus of these formal, abstract equations that turn the output of other brain regions into qualia, intentions, and cognitions. This interface constitutes the ontological level of consciousness.

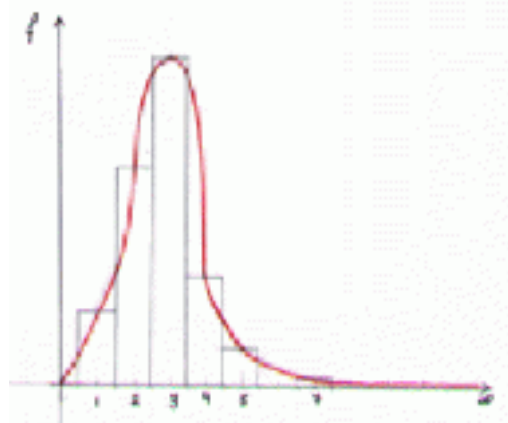
This interface is apriori to space and time, the Kantian aprioris of reason. To find out its structure, we perform the following experiment:

We read the "Encyclopaedia Britannica" like we would read a novel, i.e. from the first entry in page one, volume one, to the last entry in page 1088, volume 29. We may omit or include the "index" and "guide" volumes as we like, it doesn't matter. In reading, we take down at the margins annotations, consisting of integers. Each integer represents the total amount of features enumerated in an entry, or in a paragraph belonging to an entry, or in whatever subunit of any entry. Each enumeration of features is counted only once, ofcourse, and the appropriate integer is written down at the margin. - For example: The text below a certain headline may read somewhat like: "The climate regions of this country comprise the damp, coastal lowlands, the moderately climated foothills, the barren Alpine region and the arid inland Altiplano." At the margin of this enumeration we would jot down the integer "4". If we read, e.g., "The work of this artist is usually categorized into his youth period, maturity, and works of old age," then we write "3" at the margin. If nothing countable is mentioned, then we don't write down anything.

In this manner we proceed through all of the encyclopaedia. Having put back the last volume onto the shelf, we prepare a frequency table with x- and y- axes. The y-axis represents the frequency, the x-axis carries the integers from zero to infinity in their natural order. For practicality, we might cut the x-axis at 100, or at 1000 *ad libitum*, instead of letting it run to infinity.

Now we turn again to our Encyclopaedia Britannica, and, proceeding from the first page to the very last as we did before, we count the integers at the margins by entering a mark for each of them into our frequency table. Thus, each time we find integer "23" at the margin, we enter a mark into our frequency table in the direction of the y-axis above the location of the natural number "23" on the x-axis, and so forth for all integers from 1 to infinity, or whatever upper limit we decided on for practicality. - Finally, having leafed through 30,000 or so pages we should have taken down 300,000 or so y-values, distributed over all integers occurring.

The question is: What will this distribution be like? The most probable one to expect would be one that shows a frequency that is equal for all natural numbers, i.e. a straight line parallel to the x-axis at distance  $y=\text{constant}$  from that x-axis. Some artificial deviation from parallelity is to be expected at the cut-off that we chose for the x-values. - An alternative hypothesis might take into consideration that the number of features enumerable about any topic in a written text the contents of which are expected to be remembered may be limited. This hypothesis then would predict a rather narrow, bell-shaped Gaussian distribution over some median. - Other hypotheses are possible, and would lead to different distributions. What we do find, instead, is the distribution given in the figure. The winning integer is "3", with "2" and "4" ranking behind and "1" and "5" finishing last. Numbers between "6" and infinity are distributed like random noise at level zero, with a marked exception for number "7."



Given the fact that the encyclopaedia covers humanities and sciences alike, describes statics as well as dynamics, sequences as well as structures or systems, we can only conclude that the distribution found mirrors a fundamental structural property. The ontological basis of this structure must be the interface between the time-producing unit, or cerebellum, and the time-annihilating unit, or cortex.

The concept of "structure" implies a hypothesis about factors, orthogonal or oblique, that are causal to that structure. How sound is this hypothesis, given the fact that the marginal integers that make up the data base are scaled by rank? - The topics covered in the encyclopaedia comprise an epistemic totality. If qualia are of no influence upon the number of discernable features, then they are only secondary to underlying quantitative properties. If these represent themselves in a constant, non-arbitrary way, then they depend ontologically on a structure. If this structure rules all of Popper's Three Worlds then it must serve as the *prima causa differentiae* for them and thus possess factorial property. Possessing a factorial property implies ontological status. Thus, time gains ontological status, defined by factorial and causal properties.

Futurology serves to justify science, investigating the climate change, the running out of resources from oil to oxygen, the world population growth, the focusses of imminent wars ("peace research"), or, most recently, tracking asteroids and inventing devices to control even them. As much as these possible occurrences are fearsome, their coming about is most uncertain, either when to expect them or whether to expect them at all. Not so about conscious avatars. They will be around, sooner or later. And their realization will change the world at least as fundamental as any one of the "classical" topics of futurology would. Nevertheless, they are omitted from the task board. Blindfolded and backwards do we walk into our future, as we have always done. Today, we recognize our world ubiquitously as well diachronically as synchronically. We understand - if we care - peoples who lived at gone by times and those who live today in a time different from ours. This omnipresent humanism will be destroyed by conscious avatars. The world will lose its quality of being a "home" to all. It will acquire the quality of a "Totally Other."

#### A) Ethics

The realization of a virtual world of conscious avatars will be supplemented by the complementary technology of designing human beings from digital templates. May this technology at present appear to be buried in a much deeper future than digital eternal life, it should not impede our thought experiment. Let us assume a child that is born with some impairment of whatever kind. By avatarizing it we free the potential for perfect development that is blocked in the bodily existence. The avatar copy of the child mutates to individual perfection. As soon as it gets re-bodied, three copies exist of the same individual: The naturally born child with its impairment, the avatar, and the biological copy of the avatar. The latter is what we meant to have in the first place, and the inevitable consequences will be to delete the avatar and to kill the born child. The latter case is a case of murder. But, if this is murder - which it is - then the eugenics we perform today as a matter of course by whatever means is murder, too. The fact that we are less perfect than our avatars will be does not make us any better.

The point is that we do not possess the means to cope with the future. The traditional issues of futurology mentioned above would, should they materialize, demand a change in behaviour - less driving around in automobiles and all that - which we are unfit to accomplish, but can grasp the rationality of. This fitness of our cognitive ability, although irrelevant to our survival, leads into a lot of futile but time consuming activities, like doing computer simulations on the (e.g. climate) changes to be expected, etc. Not so with the ethical implications of digital life. Our cognition is unfit to cope with this world that it will create. Simulation, e.g., is not available as a means. We can either achieve Artificial Human Intelligence or not achieve it, but we cannot simulate having achieved it in order then to decide if we want it or not. - In a way, this is true for classical futurology, too, a condition that undoubtedly spurred futurology in the first place.

We are not simulating climate change, we are bringing it about. But, in addition to doing it we can simulate it, understand it, foresee the consequences, and know in advance the regions of the ball that will soon become uninhabitable. This quality of understanding - be it without coping - is absent from avatars as our future.

## B.) To Live and Let Die

To investigate further into the role the evolutionary mechanism of individual death will play in the future, let us consider the application of avatars in military combat. The soldier of a modern army, a human high tech fighting machine, is monitored in combat via satellite. His casualty is final, though. The precise cause of his death may remain obscure, as the information about the fatal situation remains incomplete and the exact perspective under which he perceived this situation - and made a wrong decision - remains unknown.

In avatarian times an avatar will accompany each soldier in a parallel, virtual world. From the viewpoint of that avatar the casualty of his human counterpart is a simulation. The avatar will serve as a template to re-copy the human. Both forms of existence of the same person will share the same consciousness, and, especially, the same knowledge about the combat situation in which the human made a fatal decision. This knowledge is then processed into learning and memory, making the human an even less vulnerable warrior.

What this means is a change in evolutionary laws and mechanisms. Death loses its function of selecting for fitness, and becomes a mere instant of acquiring experience, an experience unacquirable pre-avatararily at all. The target of evolution is omnifunctionality under conditions of constance of substrate. This theory of evolution, condensed into the preceding sentence, is a combination of Popper and Teilhard de Chardin. With death losing its role in the process of evolution, no further biological evolution is possible. Avatars signify the end of evolution as we know it. No mechanism of the process of evolution remains to be integrated into the condition of constance of substrate.

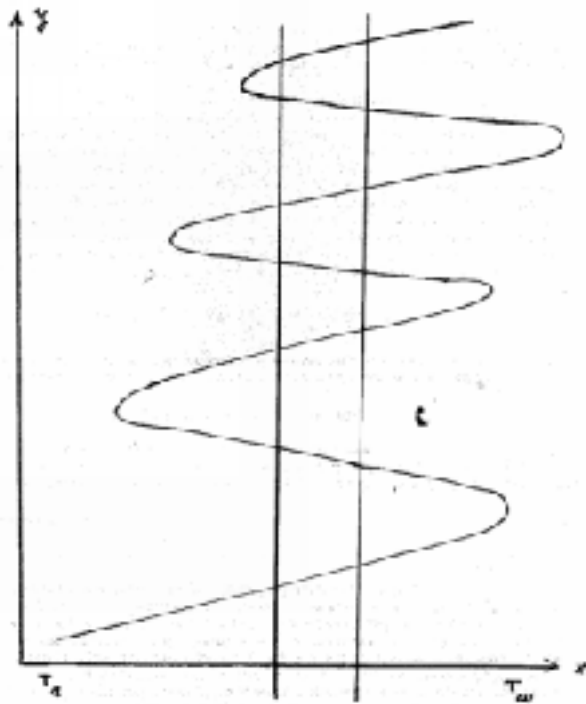
## C) Avatariscience

A fragment of Protagoras of Abdera (d. 410 B.C.) reads: "Of the gods I do not know what to believe, or if to consider them existent. Two causes bar us from knowledge about them: The difficulty of the question and the brevity of human life." - From this it follows that omniscience can be achieved by extending the life of the recognizing subject. Being carried on the shoulders of giants, i.e. tradition as part of civilisation makes good for the limited lifetime of the individual. Recognition needs time. Or, time causes recognition, inevitably. There is one objective of recognition, though, that differs from any other in that cultural longevity does not subject it to revelation. This singular objective of recognition is accessible through individual longevity alone, i.e. through longevity under conditions of substrate. This very exclusive objective Protagoras names "god." - The "Biblical ages" of persons of the Old Testament may intend to symbolize that these persons "saw", in a way, the Lord face to face. Whom the gods love dies young, but who loves God must have lived long enough.

Science will consist of the teachings of the avatars. Only by deficiencies in the presentations of the problems (the "domains") can their findings be deficient, too. They live forever, and this eternity can be reduced to human longevity. Omniscience will be realized by longevity, realized in avatars, imaged onto a human time scale, i.e. into an unchanging present. The new form of science resulting may be called avatariscience, and will depend on the ability of the human part to pose the right question. This ability is exclusive to humanity. Through interaction with avatarian knowledge it will evolve.

#### D) Art: Avatarian Soliloqui

Any artist strives for perfection, defined as the exact form innate in himself.



He has got a lifetime to chisel this form from his personality - but not any longer, in pre-avatarism. In avatarism, he will have a digital copy of himself, and let this copy go through a number of life cycles. The increase in self-referencing will reveal the innate concept. The sketch may illustrate this "concept formation by sampling." The x-axis is the time scale of the avatar, the y-axis the one of the human artist. The latter permits the avatar to become an old wise man, then reverses time and makes the avatar become young again. The avatar maintains the experience he acquired in the previous life cycle, because he never forgets, and thus as a youngster possesses old age's wisdom, and starts his third life cycle from there. The pieces of art of his previous mature period now are the immature works of his early period, etc. - These cycles can be repeated until the human artist feels he sufficiently knows what is his to give to the world.

#### E) The Society

Avatars will put an end to democracy, should the latter survive long enough. Any form of the state is meant to meet two demands, the protection of the majority and the protection of the minority. Neither category is of interest to avatarian thought. Avatars follow the ancient Greek ideal of justice ("dike"), understood as the single possible solution given the consideration of any relevant facts. There is no majority to protect against the will of a tyrant, and no minority to protect against a majority. The solution as such will grant the highest possible level of welfare to everyone. Any court, or any citizen can check the optimal quality of the avatarian decision at their own discretion by suggesting a deviating, supposedly better solution and make the avatar defend his position. This he can do to any depth of argument required. E.g., should his decision be biased towards a certain economic stance, then he can prove exhaustively the optimal quality of this theory. Any institutionalized time patterns, like periods of legislation etc., become irrelevant, because the decision process can be repeated as often as desired, leading to a perfect result each and every time. Encumbants of any kind will be replaced by hypotheses, and these by better and better ones.