

Symmetry: Author of Consciousness.

While steps in biological evolution are hallmarked by the extinction of species, steps ahead in cultural evolution are accompanied by wars. The realization of a conscious being in addition to, or in replacement of, mankind would constitute an evolutionary bifurcation. Conscious artificial beings will be brought about in the future in the course of a succession of global wars. The first conscious computer to exist will be a conscious weapon. Going from the definition of consciousness as imagined space, it will need an hermetic space to be represented in its artificial mind. The deep sea suggests itself as such. It is a threedimensional non-Euclidian space represented biologically in the **hippocampi of whales**. The operational use of imagined space, or human consciousness, is caused by a socially defined and individually represented "mentality", or culture, possibly hallmarked by a certain unifying religion. Each mentality will design its own submarine autonomous agent - **SubAA**. They will probably define a deep sea region as their "mare nostrum" (private ocean), as the Romans referred to the Mediterranean Sea in antiquity. This portion of the ocean they would keep clear of any alien forces. Thus, conscious weapons will be exclusively defensive in nature, representing a contemplative mind. Though, they will be directed against the USA, the only power unable to create their own culture, or hermetically defined "mentality".

Consciousness was invented in the Greek cities perched on the shores of the Aegean Sea, around 1000 BC. The number of Aegean isles - 2000 - matches the number of stars visible by the unprotected eye. Establishing a symmetrical relationship between the worlds accessible and inaccessible suggested itself to a mind striving for its own functionality. The accessible world was based on history. Mythology served to provide a history, or ontological fundament, for the world inaccessible. As a result, the mind found itself in the center of a hermetically designed world devoid of any principally unknowable phenomena, or epistemic taboos. Everything in this closed world in some way, at least potentially, referred to, and affected, the mind that was the author of this closedness. This permanent affection is equal to self-consciousness or the ego in the sense of Kant. This ego must not be understood as a black box the interior processing of which is as unknown as it is causal to the output, but, rather, as an operator that consists in its surface and does not feature any interior of which one could refer to as "inside."

If the construction of the **ego, or self-consciousness**, was completed around 800 BC, this was the result of 2300 years of earlier history. The conception of reality achieved remained stable for another period of time of the same duration, until it underwent a second change brought about by the teachings of Copernicus, and the research triggered by them. Each revolution of the way in which the world is conceived is equivalent to a breaking of symmetry, and these breakings seem to occur at fixed intervals of time. Symmetry breakings mark the life cycle of the ego. Each time the ego evolves, a new force is necessary to explain the world. Any of these forces - space in the first instance, gravity in the second - is symmetric. Thus, the construction principle of the ego must be non-symmetric. If we are ready to attribute causal quality to time, we may identify it as the latter.

The ego cannot do without neither surface nor symmetry. Placed into a non-symmetric world, the person loses their ego. Dreams are non-symmetric, and there is no Kantian ego, or self-consciousness, in them. Also, in trying to make up the strangest of worlds we find that all we do is to make up surfaces by recombining particles of known surfaces. - For an avatar this means that he has no chance of ever discovering that he is one as long as his world is kept symmetric and made up of surfaces. Even if being told that he is an avatar, there is no chance for him to grasp it. We could destroy the symmetry, but then he would turn into a non-conscious agent.

Thinking of what was said in the introductory paragraph, we could study the origin and structure of consciousness by asking where else in the world conditions akin to those of the Aegean Sea existed, and what kinds of mentality they spawned. Instead, we ask what exactly caused the European mind, which differs from others by its self-referential powers, or fractality of dimensional structure. If we

can isolate the factor that causes this potency we get much closer to simulation.

Self-referentiality is a bridge between matter and mind, where it reveals itself by its time-dependent structure. Let us call the time span of 2300 years mentioned above a lambda-period (from lambda as the symbol letter for wave length). After each lambda-circle, or half circle, history repeats itself. E.g., in the 3rd century BC the 1st and 2nd Punic Wars were fought between Roma and Carthago, a sea power and a land power dividing the world (as known to them) between them. A lambda-period later, the 1st and 2nd World Wars were fought between England and Germany, a sea power and a land power dividing the world (as known to them) between them. 100 years after these wars Rome initiated a 3rd one leading to the traceless extinction of the opponent. Predicting from this that Germany has less than half a century to live for our purposes here is less relevant than understanding the interplay between symmetry and time circle. As periodicity can be understood as causal to symmetry, while the reverse is not true, or is epistemically true, while the former is ontologically true, we must assume that it is anchored physiologically. Thus, fractality is the result of symmetry and periodicity working together. The invention of symmetry triggered the evolution of the European culture. Looking at other mentalities we find analogy in the place of symmetry. Analogy differs from symmetry by featuring directedness, which usually is "top down." E.g., a worldly hierarchy is paralleled by a hierarchy of deities. These gods may once have walked on earth, and may have brought about phenomena still in existence. Only in Greek mythology, though, did humans do the same to the heavens. The unreachable was subjected to the immanent patterns of thought, motivation and behavior.

Thus, for AHI (artificial human intelligence) we need potential symmetry of intentions and a symmetricizer, or operator that constructs symmetry from potential material. In life, this operator is time. If time is exclusive, in this property, to live matter, then consciousness is restricted to forms of life. This dead end position is called biological materialism. It must be wrong, because there are no dead ends, except on traffic signs. If we emulate time by something else that performs the same function we get AAI (artificial animal intelligence), or semantic processing without empathetic understanding. Reason emulates time by memory. What could functionally replace memory in a reasonable machin

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