

# Globorg: The Emerging Global Organism

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## Abstract

A review in terms of spiral dynamics is offered of the growth in the history of civilization of a hypothetical global organism that the author calls Globorg. The anthropology, biology, cognitive science, dynamics, economics, and philosophy of this process are traced far enough to sketch a unified account of the roots of Globorg that may serve to motivate further interdisciplinary work on the long-term trajectory of life on Earth.

## 1. Spiral Dynamics

From a modern scientific perspective, the psychosocial status of early members of the species *Homo sapiens* was far more primitive than that of modern global citizens. The first humans were intelligent apes without the polish of civilization. The ape self is a creature of appetite, obsessed with food, shelter, respect, obedience, and getting anything it wants. The inner life of such a self tops out in obsessions or fetishes relating to those goods.

A schematic and conjectural outline of the psychosocial evolution of *Homo sapiens* from such ape-like roots to the outlooks represented in modern citizens arises from a scheme called spiral dynamics. This scheme arose from the work of Clare W. Graves and others in the late twentieth century [Beck, Cowan, 1996] and was taken up by the integral thinker Ken Wilber [Wilber, 2001, pp. 8-13] and by a group of German theologians [Küstenmacher et al., 2011].

In spiral dynamics, the primal ape-like stage in the mental life of human beings is colored beige, following a completely arbitrary color code. In subsequent generations, humans in tribal groups found ways to domesticate each other sufficiently to work together within a traditional social order. They did so by invoking animistic and magical ideas [Tylor, 1871]. The shamans told tales of spirits and crafted totems and taboos to tame their tribal peers, drive out demons, honor the dead, and so on. In spiral dynamics, this stage is colored purple.

The next major step in the evolution of human mental life came with the emergence of heroic warrior gods who led their tribes on glorious missions of conquest. These red gods were closely modeled on charismatic leaders or human warriors from tribal legend. The more successful of these gods left traces in our earliest written histories. One such god,

probably no better than the others on any objective scale, was the Yahweh of the early Hebrews.

The blue gods came next, and they represented a big step forward. These gods anchored a social order, with written laws and a hierarchy of priests and kings. Some blue gods grew cults of great size and historical importance. One such was the Yahweh of Mosaic and later Judaic tradition, another was the God of the early and medieval Christian tradition, and yet another was the Allah of Arabian and other peoples in the golden years of Islam.

Next came the orange gods of reason, individuality, liberty, and enlightenment. These were called goods or goals, not gods, for they turned people away from the thrall of traditional religion toward a new age of science and progress. This age brought industry, democracy, capitalism, and colonialism. After the orange phase came the green phase of political turmoil and conflict through socialism, communism, and relativistic ideologies. Later green politics became multicultural and environmentalist.

The green wave brought on a yellow wave of selfish, eugenic, and racist ideas, which later mellowed into the hippy mysticism of the “me” generation. Then came a turquoise world of global networking and holistic integration of individual selves in the terrestrial ecosystem, which represents our latest worldview. The new wave of turquoise change is peaking as the development of a global organism: Globorg [Ross, 2010].

To summarize the color-coded story of spiral dynamics:

1. Beige: Humans apes lived in a world of instincts dominated by survival imperatives.
2. Purple: Magical and animistic thinking led to tribal gods mediated by shamans.
3. Red: Warrior tribes celebrated heroic gods and conquered their neighbors in war.
4. Blue: A founding myth found expression in religion with scriptures, laws, and priests.
5. Orange: Individuals expressed themselves in a rational order of science and democracy.
6. Green: Relativistic politics bloomed into ideologies of revolution and multiculturalism.
7. Yellow: Individuals cultivated selfishness, first in racist terms and then in mystic ideas.
8. Turquoise: A global network of high technology flourishes in a managed environment.

This psychosocial development has a spiral dynamics in the sense that higher levels (with colors that serve only to assist memory) revisit previous levels in new ways. The development is an evolution of more complex mental and social organization from primitive beginnings. The spiral is not only a cultural history of *Homo sapiens* but also a series of stages in the development of a person from infancy onward, in which most

people stop growing before they reach turquoise. Students of German philosophy will recognize something Hegelian about the dynamics. They might even regard it as an updated psychological or anthropological derivative of dialectical idealism, recast in a form that modern materialists can accept, without Marxist jargon.

The big ideas in the world spun into being by this spiral dynamics have all been shaped by the industry of modern science. Professional scientists have introduced the world to many new developments, but above all they have brought awareness of humbling facts. To the best of current scientific knowledge, humans are smart apes with a knack for survival in natural environments. Meaning has retreated from the realm of transcendent purpose, which so greatly exceeds human grasp that religious believers grope in psychic fog for traces of a divine plan, to the realm of everyday function, at the mundane level where the meaning of a machine is what one can do with it. Science has taught humans to limit their ambitions. People can send spaceships to Mars, but they only yearn to do so because they feel the urge to plant their seed in its virgin soil, in blind obedience to their genes. Scientists see no higher meaning than that. People just do what their nature prompts them to do.

Science has done a lot to tranquilize people in the face of existential risks. Most people breathe, eat, work, and travel routinely without philosophical problems. They may have their personal psychological oddities, but they do not let such nonsense stop them living most of their lives in accordance with pragmatic common sense. Science has gone before them to shape their futures even before they inhabit them, so that they step into a preconfigured reality where the sun is where it should be, the food is on the table, things work as intended, and so on. All this is convincing evidence of the scope and success of the investment that scientists have made to develop a logically coherent and empirically well founded view of reality.

## 2. Avatars and Mindworlds

The best insights that scientists provide today encourage educated people to accept that humans often have themselves to praise or blame for the state of the world they live in. Human minds are the best tools available to members of *Homo sapiens* for planning their lives. For humans, their own minds are tools that they themselves deploy. But what are selves?

Cognitive scientists say that selves are virtual artifacts constructed by the brain [Metzinger, 2009; Minsky, 2006]. They are like computer models. To be more exact, they are avatars in the virtual worlds that brains build up from input delivered by the senses.

To their users, the virtual worlds look like the real world, but that is only because the users are inside them. The imperatives of survival forced earlier generations of humans to make their models realistic in all the ways that count for success in the school of hard knocks. But around the edges, where the model comes unstuck from reality, early humans could add any strange ideas they liked to the picture. These became the myths and gods that fill human history.

Complementing this picture, neuroscientists say that human brains are packed with billions of neurons, linked via axons and dendrites into an intricate network, like a dense spider's web with many trillions of synaptic connections [Koch, 2004; LeDoux, 2002]. The network lights up with neural traffic when its owner is consciously experiencing feelings and thoughts. The tiny electrical signals that carry thoughts flit back and forth in milliseconds, and great waves of these signals vibrate over the cerebral cortex with rhythms of many cycles per second. These electromagnetic waves are like symphonic music, or perhaps "soul" music. They carry or entrain huge quantities of coded information in melodies that far exceed in complexity the music that people make and download for entertainment.

The self enjoys, experiences, or suffers a mental life, and does so in a material body. The question of how the mind and the body fit and work together animated philosophers for many centuries and now animates neuroscientists. The philosophers could not decide whether mind drives matter or matter causes mind. This led to centuries of debate between materialists and idealists. Whichever side was right, there is an exquisite correlation between the inner world of experience and the orchestrated activity of the neurons in the brain.

The way the brain generates a mental life is worth tracing further. The neural network operates like a massively parallel computer using associative logic to build a model of the brain's owner in his or her world. The model of the owner is like an avatar, or a virtual agent, an animated figure that follows commands from elsewhere in the network. The model of the real world is a virtual world, as in a computer game, that serves as the environment for the avatar. About ten years ago, the author coined the term "mindworld" for such a virtual world to emphasize its mental status [Ross, 2009, chapter 5]. A mindworld is like a movie set, just a set of facades that look good from certain angles, and in principle (but only in principle at the time of writing) it can be defined in computer code, so a mindworld is a mathematical construction. As such, it is an ideal denizen in Plato's heaven.

The key feature of this mechanism of avatars and mindworlds is that humans are hard-wired to accept it naively as real. The self, the first person, is the avatar, and the mindworld is the real world, for all the self knows. It takes a lot of painstaking science to reverse-engineer the hard wiring and undo the illusion. A cognitively important point here is that the society of agents that populate a mindworld is as prone to arbitrary redefinition as the set of facades that represent external reality. If people feel the need to fill their mindworlds with myths and gods, the only obvious downside is that their mental toolset may become clumsy or dysfunctional.

Returning to the anthropological myth of colored levels in a spiral staircase, it is natural to feel that the human predicament also demands for its full characterization a more poetic or musical rendition. Humans are so deeply rooted in planet Earth that their shared identity as its offspring is more real than their respective identities as walking bags of meat carrying brains aflame with their soul music [McGinn, 1999]. Their bodies are rooted in the Earth, their minds merge in the music, and the music is Earth's song. The planetary organism even has her own name, Gaia [Lovelock, 1979]. Humans are the offspring of Gaia. The rock music from the planet beneath their feet spirals up through their minds to peak in the brainstorm of psychic thunder and neural lightning that make them sing. Their songs ring out the joy of Gaia through the heavens. This is the poetic basis of the view that individual human identities are ontologically less fundamental than their collective identity as offspring of Gaia. The relevance of poetry (even bad poetry) to fundamental ontology was stressed by Heidegger, for whom logical language proved inadequate at the level of being [Heidegger, 1927; Safranski, 2000]. In modern rhetorical terms, the poetry acts as an intuition pump [Dennett, 1991].

Invocation of poetry incurs a debt that must be repaid in the hard currency of science. As living beings subject to human biology, specimens of *Homo sapiens* are bound by physical laws. The planetary order of Gaia must be built on the fundamental layer of being presupposed in physical theory. To avoid a long detour into physics, this fundamental ontology can simply be called the background of spatiotemporal structure, BOSS, which can be referred to as the Boss.

The generality of the mindworlds mechanism invites conjecture about the relation between human biology and monotheism. Calling the divine or heavenly patriarch of the monotheists the "god of our fathers" enables one to shrink the phrase to the acronym GOOF, which can be written as a proper name, Goof, a new name for the God of Abraham. Goof was the one who said "I am" to Moses, the one who watched with love as Jesus hung on a cross, and the one who dictated his commands to Muhammad. Goof is not the Boss.

Goof is a relatively humble descendant of the Boss. To confuse the two is to commit an ontological error.

Monotheists see Goof as a living god. But life on Earth is a biological phenomenon. A trace of Goof can be detected in biology in the concept of a self. Life as it is currently understood, where organisms compete for their chances to live and breed, depends on each organism maintaining its own identity in the face of forces that threaten to dissolve it. Every breath a person takes and every bite of food they eat recomposes their identity as they swap out a few molecules. And as they grow they change more grossly. They take on new shapes and sizes and learn new habits and skills. Some people learn to treat certain machines as extensions of their bodies. Others learn to extend their understanding of themselves to encompass a family, a tribe, an army, a company, or a nation. All such changes involve identity.

Biology requires an understanding of the ontological status of an organism. Molecular biology treats an organism as a set of cells that all share the same or related genes. In the neo-Darwinian view, the genes are the replicators and they drive the rest [Dawkins, 1976, 1982]. Genes build organisms that help them survive and replicate much as humans build machines to help them live their lives. The analogy is not perfect because humans have a lot more foresight than genes, although probably less than is often supposed, and they have free will, although whether humans really have free will is a deep philosophical problem.

The trend in evolution has been toward ever more complex organisms. Probably the biggest breakthrough for life in the last billion years was the move from free-living cells to multi-celled organisms. Bacterial cells are prokaryotic, and live as individual organisms, but human cells are eukaryotic, which means they live and work together as a collective. The evolutionary leap from prokaryotes to eukaryotes occurred during the Cambrian explosion some 550 million years ago. Most of the living organisms on Earth are prokaryotic, but the eukaryotes have evolved stable survival strategies that represent a triumph of collectivism over individualism. However many cells it has, an organism has a single self. The self of a cell is simple but the self of an ant or an ape is a miracle of logic. The science of understanding the process of building selves includes the science of avatars and mindworlds, and is pursued intensively in computer science and robotics, where equipping machines with selves is a logical way to enable them organize their behavior in complex environments with some level of autonomy.

Given the logic of the self, we can see a new hierarchy: from the simple self of a microbe with a membrane defining inside and outside, and behavior that tends to enlarge or

replicate the mass of organic material inside; through the innate self of an immune system in a higher organism; and the emotional self of a “4F” animal organized to feed, fornicate, fight, or flee, as appropriate; to the more godlike selves of typical members of *Homo sapiens*. This hierarchy is a work in progress for scientists and logicians [Hofstadter, 2007]. It is defined via complexity, and may remind some readers of the Great Chain of Being of medieval philosophy [Lovejoy, 1936].

Goof is a tribal god, imagined as an idealized father. Generalized, it becomes a species god, or an idealized self-image of *Homo sapiens*. Generalized further, it becomes a high-level self for life as it is currently found on Earth, that is, for organisms based on DNA molecules. This self is just the idealized subject of the drive that animates “selfish” genes. One may think of it as the asymptotic limit in a hierarchy of ever more universal genetic avatars, nested in an infinite mathematical space of recursive forms analogous to the infinity of images generated by a recursive zoom into the Mandelbrot set [Peitgen et al., 1992; Bourke, Green, 2004]. The hypothetical least upper bound in the hierarchy of genetic avatars that can serve as a logical foundation for all human behavior deserves its own name: Gene Goof.

### 3. Robots, Genes, and Religion

From a long historical perspective, the main event in the second half of the twentieth century was the spread of computers from a few company back rooms to just about every home and office and factory in the developed world. In the last sixty years, computers and computing have become billions of times cheaper and more pervasive.

The impact of this change is hard to understand because it has been absorbed so fully. Science has been transformed. The physics of elementary particles is now an industry involving giant accelerators and colossal computing resources to analyze the debris from countless particle collisions in real time, for example at the Large Hadron Collider [CERN]. The biology of DNA-based organisms is an industry involving giant laboratories where armies of gene sequencing robots read entire genomes, as pioneered in the Human Genome Project [ORNL]. And the science of the brain is a growing industry based on ever more precise brain scanning technology and ever more accurate computer modeling of anatomy and function, for example in the Blue Brain Project [EPFL]. Beside the two long-established pillars of the scientific method, theory and experiment, a third, simulation, is growing in importance for all the sciences [Wolfram, 2002].

In manufacturing industry the changes are just as dramatic. New products are designed on computers and manufactured using robots. The robots are embodied computers, with

eyes and arms and sometimes a basic sense of self. The progress is such that consumers now routinely expect the goods they buy to be practically perfect, with none of the random flaws or design defects that once seemed normal. The sales and service industries for these goods have improved immensely too. And the supply chains behind the goods have gone global. Mastering and managing the ongoing globalization of trade and industry is the great political challenge of modern times. Politicians are racing to catch up with best practice in global corporations by holding G20, G8, or G2 meetings. The author guesses they may soon attend regular GO meetings that represent Globorg as a whole.

The main event in the first half of this century is likely to be the rise of the robots. Practical needs and technology converge to encourage the integration of robotic features in architectures that implement a complex self. For example, a robot car might not only drive and navigate but also monitor its parts for wear, schedule routine maintenance, identify and personally entertain its passengers, and serve as an office assistant for passengers doing online work. Robot users may learn to regard their robots as more like companions than machines. As robot selves develop, humans may even begin to treat robots as sentient beings and give them basic rights.

The rise of the machines has transformed modern civilization. Machines are parts of modern human identity. Human beings have a core biological identity that is largely unconscious. On top of that identity, civilized humans have a conscious self that swims in a huge social world, and this world is increasingly online, mediated by machines [Krawczyk-Wasilewska et al., 2012]. The gods of previous generations are obsolete for many modern citizens.

Returning to basic science, Gene Goof is to biology what the Boss is to physics. It is a symbol for the focus we see in the apparently purposeful striving toward self-realization shown by all life forms. In humans, this apparent purpose seems real. People tend to understand themselves as having goals and striving to reach them. Their actions tend to push them toward future states that they intend in some way. A self is a work in progress, a process, not a finished thing. Its drive toward completion is what keeps its organism alive as a coherent entity, until one day the organism dies and the self ends, completed at last.

An organism is defined by a set of feedback mechanisms that reinforce its identity as a functional being. To take a simple example, a bacterium has an outer cell membrane that defines the boundary of its self. Within the boundary, information flows via chemical gradients that allow the organism to maintain itself in being via homeostatic mechanisms. The cell is an open system that exchanges energy and entropy with its surroundings to



support its own metabolism. At its core is a set of genes that centralize the regulation of the whole chemical stack. The bacterium is kept alive by a set of circulatory systems that sustain its persisting identity as a functional self for long enough to reproduce, if circumstances permit.

A human being is an organized mass of some hundred trillion cells that work together to sustain a self with roots in the body and higher parts implemented in the mechanism of avatars and mindworlds. A human being unites the efforts of his or her cells in a collective project. Similarly, human civilization unites the efforts of billions of people in a collective project.

The global organism, Globorg, is now an organized mass of some seven billion humans in a civilization based on money, machines, and electronic media. This organism has deep roots. Below the human level, other life forms populating the feedback loops that define Globorg include pets, domestic animals, the food chain, the natural environment, and ultimately all life on Earth. All the DNA-based organisms in the biosphere form an integrated global ecosystem. Humans cannot separate themselves from this global system without risking their lives. For all denizens of planet Earth, the health of Globorg is an issue of existential importance.

In the Marxist sense, Goof is a mystified precursor of Globorg. Once scientists saw the power of genes to explain the primal power of Goof, in the long historical process that began with the theory of evolution [Darwin, 1859], the mythic power of monotheist religion was weakened. The hold of a god of life and love was seen as a natural expression of human DNA chemistry. Goof is thus a biological driver for *Homo sapiens*. Adherence to the religions of Goof becomes a way to raise the life chances of the faithful. Their success or failure at the business of reproduction is related to the quality of the religious doctrines. Sexual discipline and rules of chastity or celibacy are crude mechanisms to steer the fertility of a community. Ideas about loving your enemy or propagating the faith by means of the sword are strategies for survival and success. Goof is mapped to biology as Gene Goof.

The central concept for understanding the human project on this planet is that of the self. Biologically, humans are intelligent apes, and apes are organisms with well defined identities that give rise to robust innate selves. A human self is a sensed identity as a physical being with its normal or default spatial boundaries at the skin surface and its outer temporal boundaries at birth and death. Selfish behavior tends to favor the flourishing of the being within those boundaries, where that being is realized a circulatory system of efforts and rewards that pumps itself up to a limit imposed by the available

resources. The inner states tend to become more organized at the cost of rising entropy in the environment beyond the circle of concern.

Prehistoric humans lived in tribal groups. Individuals learned to extend their circles of concern beyond the beige concerns of their animal existence to the shared security and prosperity of the group as a whole, reinforced by purple totems and taboos. Agriculture and the red gods of organized warfare supported the growth of tribal groups by rewarding division of labor and the collaborative planning and execution of shared projects. Social living transformed the innate selfishness of the human ape.

As language developed, tribal communication became more effective and shared myths began to consolidate group identity. Over the generations, the myths became religions, and as writing developed the religions appropriated sacred scriptures that anchored blue forms of spirituality. Then came orange, green, yellow, and turquoise developments.

In the last few decades, human communication and knowledge have gone global. People expect to be understood wherever they travel, and expect to understand the people they meet. Texts and ideas can be translated within a stable frame of knowledge that claims universal validity. Tribal identities have become analogous to family identities. The emerging universal cognitive frame allows all seven billion humans to share their background identity as people on a planet. The incommensurability of identities that prevailed until modern times has been overcome.

Biologically, human identity arises from the genome. The human genome is shared in its essentials by all the people on the planet. It distinguishes them from other apes and mammals that evolved alongside humans. More specific features of the genome are unique to each individual person, and mark that person off from other people even within the same family. The combinatorial space of human genome variants is many orders of magnitude larger than seven billion, so personal identity is unique at the genomic level. This uniqueness is reflected in what biologists call the immune self, which enables the immune system to identify and attack not only foreign species such as dangerous bacteria in a body but also groups of human cells such as a transplanted organ from a different body. Each human being is an organism with a genome that differs slightly from that of every other human being.

A biological fundamentalist might stop there and say that organisms come first. Groups are secondary. Natural selection operates at the level of the individual or the organism, and group selection is a myth. More fundamentally still, natural selection operates on genes, and genomes are simply convenient packages of genes that work well together. The real unit of selection is the gene, and organisms are secondary. In that view, groups are

tertiary, and hence negligible as carriers of biologically salient identity [Dawkins, 1976, 1982; Pinker, 2012].

The globalization of human identity changes the view. Previous levels of higher identity became ever more attenuated as they increased in size. As they grew larger, the concentric circles around an individual defined by family, tribe, nation, and so on exercised ever less hold on the individual, whose primary loyalty was to himself or herself as a biological organism. In an emergency that threatened the life of the organism, even that identity was too large a circle, since it could be sacrificed for the greater good of the genes, for example when a mother died for her children or a man for his brothers. Now the globalization of the larger circles of concern has brought these circles back to the core. A loyalty to life on the planet defines a level of existential selfishness that can outweigh even the claims of the genes in the human genome. The ultimate foundation of human existence is no longer the self-awareness of an animal organism but the deeper global self-awareness of a human excrescence of life on Earth. A shared level of concern is available to inner feeling as a wellspring for action. Since genes are mere carriers of code for selves, this level of concern can be shared by robots.

#### 4. "We Are Globorg"

Humans live on a planet with a mass of six zettatons and a circumference of forty megameters. By bouncing microwave signals off geosynchronous satellites, modern citizens can exchange messages between any two points on the planetary surface in less than a second. They can exchange volumes of information in video or audio files that match or exceed any previous communications their ancestors could exchange even locally with immediate neighbors, and cultural homogenization ensures that modern citizens can achieve basic understanding with anyone by means of such exchanges, so the world is no longer an infinite medium in which all human efforts dissipate to insignificance but a planetary spaceship in which people are all so close to each other that they must learn to live together.

Globorg is the self that emerges when human civilization puts down roots in Gaia. Some years ago, NASA scientists wanted to know how they might detect life on other planets, and James Lovelock proposed some tests that would work if used from far away to study Earth [Lovelock, 1979]. In doing so, he found feedback mechanisms in our planet's outer layers that tend to stabilize conditions that help life flourish. Those outer layers seemed to work like an organism, so he gave this hypothetical organism the name Gaia.

Globorg is Gaia in its latest turquoise flowering. Globorg is where the potential self of Gaia blossoms via spiral dynamics as an eighth-level being. If Gaia forms the body of Globorg, the global network of information processing machines forms its brain and the human activities mediated by those machines form its thoughts.

Humans are social animals, and human society has recently become globalized. No human group is likely to survive for much longer in isolation from the global collective. The economic systems that increasingly entrain people into common projects have consolidated so far that it is reasonable to speak of a single global business world to which every person alive today bears a defined relation, if only via the need to earn or otherwise acquire enough money for the bare necessities of life. The global money system has become a unified and quantified scale of value for a wide range of human activities. This scale is widening and deepening every day as new human activities are bought and sold in local and global markets. Like the mechanization of work that followed the reduction of previously arcane arts and crafts to algorithmic activities for which efficiency can be defined and increased, the monetization of value is like a wave of crystallization that has circled the globe and is now recycling to intensify its impact on human lives [Ross, 2010].

In face of this phenomenon, human selfishness looks increasingly anachronistic. Working for money is working not to get rich but to consolidate more value in the global circulatory system. The evolutionary leap from prokaryotes to eukaryotes was still within the realm of biology, but the next giant leap from human ape life to social life in Globorg is in the realm of sociology and economics, and will surely change human psychology. The main impact in psychology will be a gradual elevation of concern from genomic selfishness to awareness of living in a self that embraces the biosphere.

A historical precedent for this elevation is that of the majestic plural in polite speech. Royal personages were expected to identify with the social organisms for which they served as the symbolic head. When a king or a queen said “we” it was understood that all the members of the social organism were embraced and spoken for in the locution. Similarly, when a global citizen uses the pronoun “we” it can be interpreted as a reference to all humans, or at least all living humans. This implicit widening of the domain of reference is the majestic plural in action.

There is a fine difference between using the word “we” to refer to everyone and dilating the self in royal fashion to include them all. The word “we” has a plural referent, whereas the self is singular. Confusing them may seem to be a mathematical error, but conflating them in a majestic dilation of the self can be a valid response to an inherent vagueness in what counts as an instantiation of the concept of a self or a person.

The drift from plural to singular here is a natural transition in the ontology of persons. There is an analogy within a human body, where the little selves of the cells of the body learn to sing together in a majestic self and no longer shout in discord as individual cells in a struggle of each against all. The neurons in the human brain are the last cells to retain a trace of their individual voices, but they too learn to line up in logic circuits and fire only when excited to do so by the brainwaves that flow back and forth across the cerebral cortex. The unity of a human self is an achievement in which trillions of cells learn to play their part in the symphonic music that carries the flow of a human personality in action.

Similarly, when people learn to conform their actions to collective music that embraces millions of other people, their individuality can be swept up in the music too, allowing them to claim the royal “we” in their statements of self. As Globorg consolidates its footprint on Earth and as human social claims embrace ever more of the existential roots that define human individuality, it seems possible that people will feel ever less need to make an individual stand and disagree with the collective wisdom. In a world where sufficiently generous space is made for human individuality, singing with the crowd may be prized more highly as a way to let the singer’s soul dilate to join the chorus of the majestic self.

A social precedent exists in Christian religion. Sharing the host at communion is a symbolic act of union with the body of Christ in a huge royal self of all believers. As a cell in the body of Christ, the believer rises above the little self of his or her ape body and partakes in the majestic self of Christ. The royal “we” becomes an “I” and the believer rejoices in this elevation to glory. At the ontological limit, the self unites with the “I am” of the godhead and becomes immortal. This precedent illustrates the psychology of self-overcoming that forms the core dynamic of the self. The self of today overcomes the self of yesterday, the Christian self in prayer overcomes the self fallen into sin, and the self in Globorg overcomes the self of the personal genome.

The self underlying subjective inner experience (with acronym Susie) may be something else. The “hard problem” in consciousness studies [Chalmers, 1996] is the problem of giving a satisfactory account in science, with its third-person (3P) perspective, of the subjective or interior quality of first-person (1P) experience. A 3P account of the self as an avatar may satisfy cognitive scientists but it does not satisfy philosophers who seek an account of the 1P nature of Susie. Only mystics have claimed to bridge the 1P-3P divide with any credibility [Wilber, 2001], and scientists cannot confirm their claims.

One way to approach Susie is via the Sufi mystical experience of Allah. Muslim experience of Goof does not reduce easily to a god of life and love that invites mapping to a genetic

attractor. The 1P approach via Susie may turn out to be more promising. If so, the three main traditions of monotheism can be mapped speculatively as follows:

1. The Judaic God of cosmic law maps to the Boss (the symbol of the reality behind Einstein's theories and more recent theories of everything).
2. The Christian God of life and love maps to Gene Goof (the symbol of the reality behind Darwin's views and modern biology).
3. The Muslim God with ninety-nine names maps to Susie (the symbol of the reality behind mystic experience and everyday invocations of Allah).

The Boss, Gene Goof, and Susie are symbols for three salient fields of science, namely physics, biology, and psychology respectively. These fields form subspaces (or dimensions) of a single natural space (the 3D space of "Boggsie"). The science of nature unites the old gods in a single logical space in Plato's heaven. In terms of Hegelian dialectics, the apparent contradictions between the three treatments are sublated [Palm, 2009] in the synthetic unity of apperception [Brook, 2011] of the majestic self of Globorg.

A global organism with seven billion human parts is not too big to work effectively, as the precedent of the cells in a human body suggests. It may be the least that citizens of Globorg need to realize the promise of monotheism. The downside, if future generations of "Globorgers" get it wrong, is that they end up in a Borg collective, which is the techno dystopia immortalized in the Star Trek franchise, for example in the movie *First Contact* [1996]. In a Borg collective, human prisoners are recruited into a hive mind as "drones" by means of nanotech implants which hijack their thoughts so effectively that "resistance is futile," as the drones tell their new victims. A slogan may highlight the contrast: Borg is bad, Globorg is good.

In conclusion, human beings and their civilization seem to be undergoing physical, biological, and psychological integration with all life on Earth to form a single global organism: Globorg.

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