

# Woldemar Voigt’s Alliance of Finite Reality with Infinite Fantasy

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## Abstract

This article tries to explain why we should ally the cerebral, vertical, and asymmetrical finiteness spared in autism with the cerebellar, horizontal, and symmetrical infinity impaired in it to avoid global warming, a super-wicked problem. The physicist Woldemar Voigt implied the alliance of detectible finiteness and lying infinity in 1887 at the University of Göttingen through the transformations of his “Shining Sphere,” or Riemann Sphere. Since they cannot lie, autistics cannot face problems, rooted in the maybe of dreaming and fantasy. The author posits that our problem is ignoring the alliance of classical asymmetry and quantum symmetry in our brainstem, Stonehenge’s builders, artless discourse, and nature’s nature. He also suggests that recalling nature’s roots will save about eight billion nonautistic liars (rooted in the “tree of knowledge”) from a disaster worse than Lisbon’s Earthquake in 1755. The ruin of life on Earth can wane by willfully grasping the union of vertical and finite asymmetry with horizontal and infinite symmetry in the “tree of life.” Asymmetrical finiteness (e.g., from front to back in a dog tick) hugs symmetrical infinity in living beings (e.g, the legs and eyes of a dog tick) as relativity hugs quantum physics; and Descartes’ cosines hug Euler’s sines in a complex plane.

**Keywords:** Asymmetry, finiteness, symmetry, infinity, global warming, lying, Voigt’s Shining Sphere, Riemann Sphere, autism, problem, nature’s nature, Stonehenge, tree of knowledge, tree of life, relativity, quantum physics, complex plane

## 1. Introduction

### 1.1 Global Warming and the Roots of Nature

Figure 1 links climate changes in the last 800,000 years with our *litter* in the last 200 years (Cassella, 2023). *Life on Earth has been wounded*. Our narcissist, media manipulators, masters of drama, and **lying** leaders (among 8 billion nonautistic **liars**) have not **seized** the danger of the ongoing global warming. While **pursuing** wealth, power, sex, and children, we are blind to our **problem**: *the excessive multiplication of humans on Earth and the consequent pollution of air and water*. I **solve it** through an **alleged vision** that **allies** the **cerebral finiteness** spared in **autism** with the **cerebellar infinity** hurt in that spectrum. God willing, that **alliance** will turn Moses’s **rainbow** into a **covenant** between He and us.

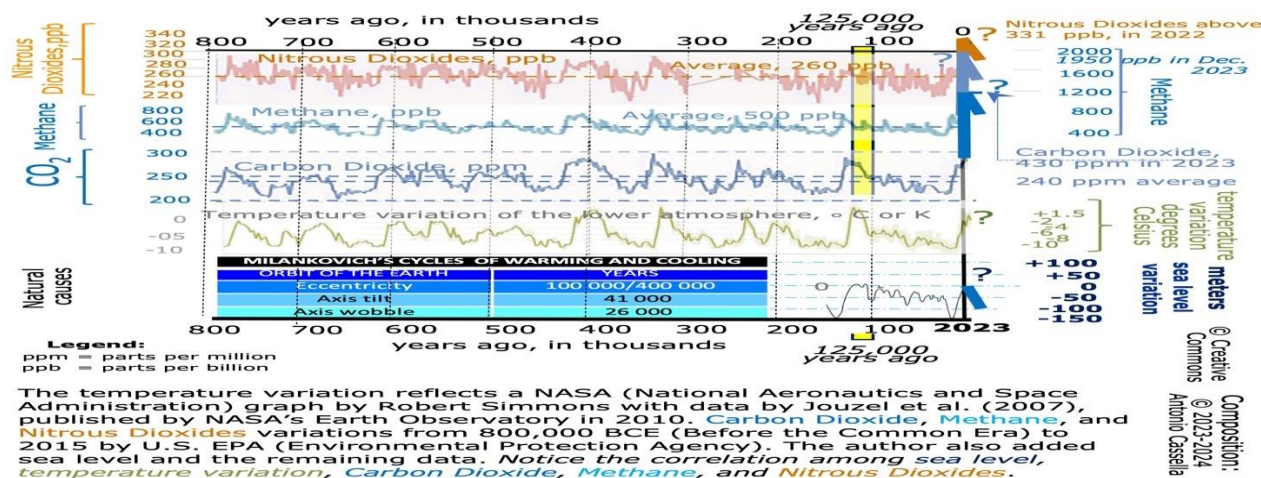


Figure 1. Climate change in the last 800,000 years and recent anthropogenic contamination

Figure 2 joins the prophet Zechariah's view of nature's roots to the northern wall of Coral Castle in Greater Miami (FL, USA). The Oolite limestone of Coral Castle grew 125,000 years ago during 6,000 years of the yellow column of Figure 1. Sea level is delayed 5,000 years in relation to contamination. Thus, terrestrial life may die before sea level rises fully.

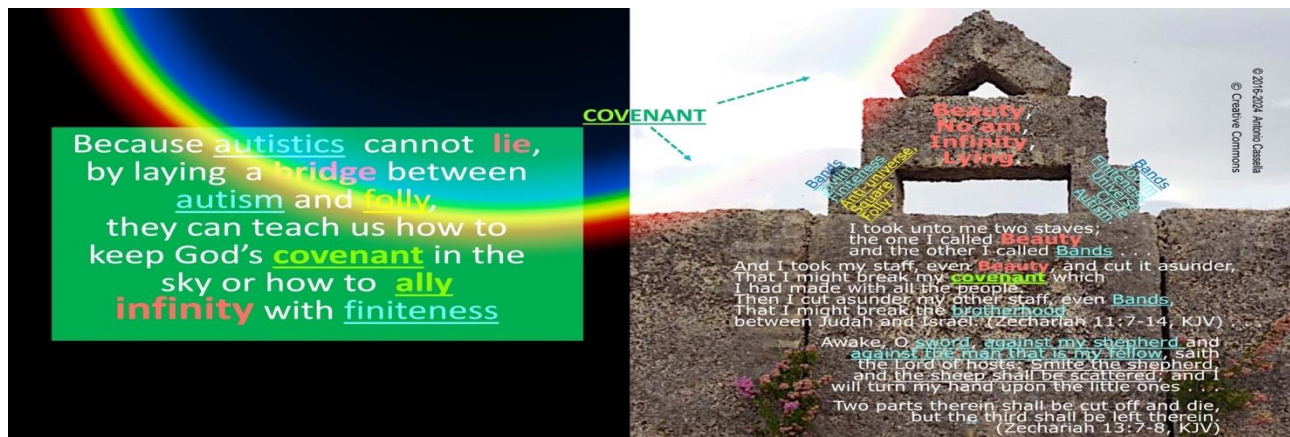


Figure 2. The view of the prophet Zechariah on the union of the two staves of nature in Moses's covenant

Scientists await more rainbows with global warming. *If life wanes*, though, who will witness colors? **Maybe Zechariah** never sought to divine chaos (Ward, 2006; Penn and Deutsch, 2022) in a lawless world. **Maybe** he suggests us to consciously unite our two staves: the Bands (finiteness, classical computing, or vertical cerebral asymmetry) in which autism (+1) opposes folly (-1) **and** the lying Beauty hurt in autism (e.g., infinity, quantum computing, or horizontal cerebellar symmetry). **Maybe!** The finite, remembered, and expected vertical rigidity of autistics will never get the infinite, fantastic, and horizontal flexibility penned in the doubt-loaded meaning of the old song by the Cuban Osvaldo Farrés (sung in Spanish by Nat King Cole): “Quizás, Quizás, Quizás” (“Maybe, Maybe, Maybe”).

After meeting vanished Neanderthal Sages 50,000 years ago, humans became conscious of the union of grammar and pragmatics hidden in impromptu discourse. Today, any inspired text (e.g., a Sacred Text) that joins finite grammar to infinite pragmatics may feed growth. Yet most eight billion liars in the world “read without reading” (Larrosa, 1998).

Jesus read thus the Torah (Matthew:34-40, KJV): “*Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and all thy mind. This is the first and great commandment. And the second is like unto it. Thou shalt love thy neighbour as thyself.*” My contact with finiteness and vertical asymmetry in autism leads me to positing that a person loves God when he or she risks instant death by lying to save a neighbor (e.g., the family of an absent, yet appreciated friend). The use of devilish quantum computing to help others would regenerate the colors we detect.

Most pistol duelers start by flipping a coin, for facing the sun may invite an early death. Hence, few duelers would admit that an infinite speed allows us to see at once the two faces of a coin. Really, most liars deem that infinite speed cannot impact a finite reality in which effects trail their causes. Yet contrite and forgiving liars would stop dueling.

Asymmetrical finiteness may support symmetrical infinity in living beings, spontaneous discourse, unconscious smiles, and hearty handshakes. “Two to tango,” though, is unnecessary in lying with the “tree of knowledge.” Long ago (65,000 years) a liar in South Africa transformed a large bough in a bow by tying with a liana its opposite ends (+1 and -1). Any liar could see directly that the contrary ends of a bow (e.g., autism and folly or matter and anti-matter) can be tensed simultaneously, which is equivalent to dealing with an infinite speed. Yet a good archeress will use her lying simultaneity to help a neighbor. If we lie to save a neighbor, we love God and our neighbor. Autistics cannot lie or appreciate infinite symmetry. Yet autism can help us use the “tree of life” to save our children from facing torment.

Loving our neighbors will help us get the sense of Stonehenge, the Black Hole at the center of any galaxy, an Irish harp, Coral Castle, or a petrified snail that knew life (center of Figure 3). In Figure 3, Stonehenge rests on joining vertical finiteness and horizontal infinity in every dolmen. A dolmen is created when a symmetrical stone-beam (Beauty) joins (Icke, 1995) opposite menhirs or Bands (e.g., autism and folly, matter and antimatter; hate and brotherhood, +1 and -1) rooted in local gravity. We have forgotten what dolmens meant for our Stone-Age ancestors. Copying their Etruscan neighbors, Romans replaced the beam of a dolmen with an arch, under a technique they used in Rome's Coliseum, aqueducts, bridges, and the triumphal arches of winning generals. They forgot what dolmens meant.

The northern wall of Coral Castle, built 70 years ago in Greater Miami (FL-USA) by Ed Leedskalnin (a Lithuanian miner-immigrant, † in 1951), supports a dolmen (lower right in Figure 3), as the Greek lambda above it suggests. The elements of nature are all there: infinity, finiteness, and their potential alliance in the open door of zero-nothingness.

As with **Stonehenge** and its “**dolmens**,” central **nothingness** (e.g., in a **black hole**) **readjusts** order (+1) and **minimizes** disorder (-1), or my **enemy’s** order (+1). Any circle we may trace **welcomes** an **infinite** ( $\infty$ ) number of **finite** radiuses at its **ambiguous center** (0). Yet in a natural **void** (e.g., 0), the expression  $1 = \infty \times 0$  is not a fallacy. My **guess** rests on the mathematical **transformations** (new coordinates) **created** by **Woldemar Voigt** at the University of Göttingen.

I **posit** here that the math of Woldemar Voigt reflects **nature**, **light**, the **cosmos**, and the **master smile** of a two-month-old baby. Voigt’s **vision** could help any **regretful liar open** the center of any circle to **see** a **new reality**.

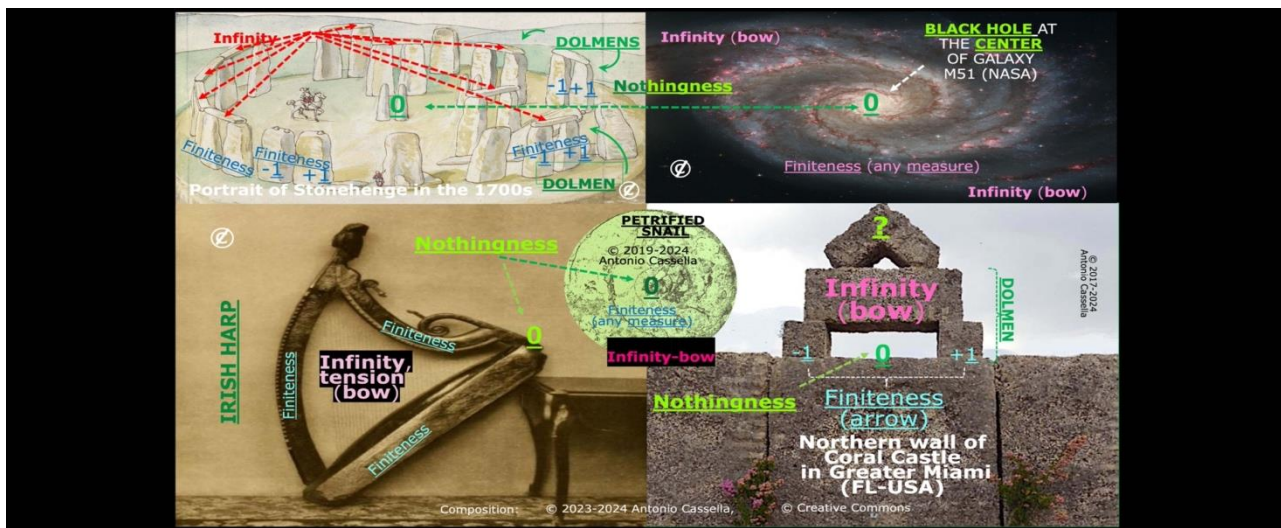


Figure 3. From a view of Stonehenge in the 1700’s England to the 2015’s Coral Castle in Florida (USA)

### 1.2 The Transformations of Woldemar Voigt

In 1887, Woldemar Voigt, a professor of mathematics and physics at the University of Göttingen, wrote an article (Ernst and Hsu, 2001; Klinaku and Sylva, 2017) on the Doppler effect (e.g., the pitch change in the horn of a passing-by ambulance). In his article (Voigt, 1887), Voigt wrote that the new coordinates of a transformation ( $x'$ ,  $y'$ ,  $z'$ , and  $t'$ ) are:

- $x' = x - vt$  on the “**X**” Cartesian axis (Descartes was called “Cartesius” in Latin);
- $y' = y/\gamma$ , on the “**Y**” axis;
- $z' = z/\gamma$ , on the “**Z**” axis; and
- $t' = t/\gamma$  (some readers do not follow me in including a new time coordinate in Voigt’s proposal).

In them, “ $v$ ” is the **early speed**; and “ $t$ ” is the ongoing **time**. In  $\gamma = 1/\sqrt{1 - v^2/c^2}$ , “ $c$ ” is the **finite speed of light** (about 186,000 miles/second). What could prove that *in nature the reality of “ $c^2$ ” in  $\gamma$  complements the reality of “ $c$ ”*?

In 1939, the 2<sup>nd</sup> Einstein (Einstein, Podolsky, and Rosen, 1935) **revisited** his equation of 1905 about **energy**, **light**, and **mass**: “ $E = mc^2$ ” (“**E**” is **energy**; “**m**,” is **mass**; and “ $c^2$ ” is the square of “ $c$ ,” the **finite speed of light** in his **special relativity**). If “ $c^2$ ” is real, did the 2<sup>nd</sup> Einstein deny his **finite “ $c$ ”** when he advised USA President Roosevelt (through a letter by Leo Szilard) to beat the Nazis at building an atomic weapon? In 1939, Einstein did **follow** Leo Szilard’s and Enrico Fermi’s advice on the viability of **fission** (the making of small atoms) and **fusion** (the making of a large atom).

There was no atomic bomb in 1887; but I **posit** that Voigt (as a mathematician, physicist, and expert of optics and crystals) **knew** that “ $c^2$ ” was as *real* as “ $c$ ,” the **finite** speed of light. I posit that Voigt **grasped** the conscious and personal responsibility of any human to **ally** a **finite** **with** an **infinite** speed of light, as we **do** it in **spontaneous dialogs**. Why **personal**? For a **finite speed** is **shared** or **decidable**, while an **infinite speed** is as **undecidable** as is **imagination**.

If  $v = c$ , then  $\gamma$  suits the **undecidability** (*being and nonbeing*) of  $1/0$ , ushering the **infinity** ( $\infty$ ) inherent in **superluminal** speeds. That is, the closed center of Stonehenge will **open** for **liars** whose **repentance** favors **abduction** (Peirce, 1908).

Gamma becomes **unity** at small speeds (e.g., a jogger in London’s Hyde Park) and **imaginary infinity** at a superluminal speed. Since the **alliance** of Descartes’ **real numbers** with **imaginary numbers** (or **finiteness** **and** **infinity**) leads to complex numbers, **Voigt** outdid the 2<sup>nd</sup> Einstein. The latter never **saw** the complex numbers (“**Z**”) (right of Figure 4) devised by **Euler** at the Russian St. Petersburg. Voigt **knew** that we need a visible and **measurable** **reality** where any number multiplied by 0 gives 0 (Cartesius). He also **knew** that  $\gamma$  fails when we deny the **infinite speed** ( $\infty$ ) of **fantasy**.

In the **alliance** of **finiteness** and **infinity**,  $0 = 1/\infty$  is not a **lie**. Old Scrooge McDuck began with  $1\$$  and an **infinite imagination** that **fished** many **gold coins** from the **void center** of **visible things**. The Doppler effect stays only on the

visible and finite “X” Cartesian axis of the **cosmos**, though **real numbers** include Greek “π,” “τ” (2π), and “e” (**Euler number**). **Doubt** (a proxy of **infinity**) may **add** to **familiar brotherhood**. E.g., the **vertical axis** of complex numbers values the **dreams** and **imagination** incurred by a **pretending girl** who lays a **bow** between the **cerebral repetition** of her **autistic side** (+1) and the cerebellar **nonbeing** of her **insane side** (-1). Her **fantastic bridge** seizes **infinity** as does a **tensed bow** in which an **archeress** moves **at once** its two opposite **ends** in **loving** her neighbor as she **loves** God. But any **great pretender** leaves the **bow** of cerebral **autism** (+1) opposed to cerebellar **madness** (-1) when called for a dear meal (e.g., cookies). Because early **pretense** is not **madness**, **finiteness** and **infinity** can **hug** in a **creative person**.

To **get** the left, **autistic**, **cerebral**, and **Cartesian** part of Figure 4, **imagine** Descartes’ trip to Rome. The maker of analytic geometry used his **cerebral finiteness** to buy a **map** of Rome in his hotel south-west of the Colosseum. *In the four cardinal directions (North, South, West, and East) of any Cartesian plane, sines and cosines are measurable numbers.* Descartes, though, had a **shining idea**: *What if the Colosseum, at the fringe of a circle with radius r = 1 (centered in his hotel), went to him?* He just replaced “r = 1” with “r = 0” in the equation of a circle (see the black circle left of Figure 4), finding two roots:  $x\sqrt{-1}$  and  $-x\sqrt{-1}$ . Since he could not find the square root of -1 among the **real numbers** of the map he had bought in his hotel, Descartes concluded that the number behind  $\sqrt{-1}$  was **imaginary**, an **opportunity** for Euler.

1.3 The Complex Plane, Euler Identity, and the Tau Identity

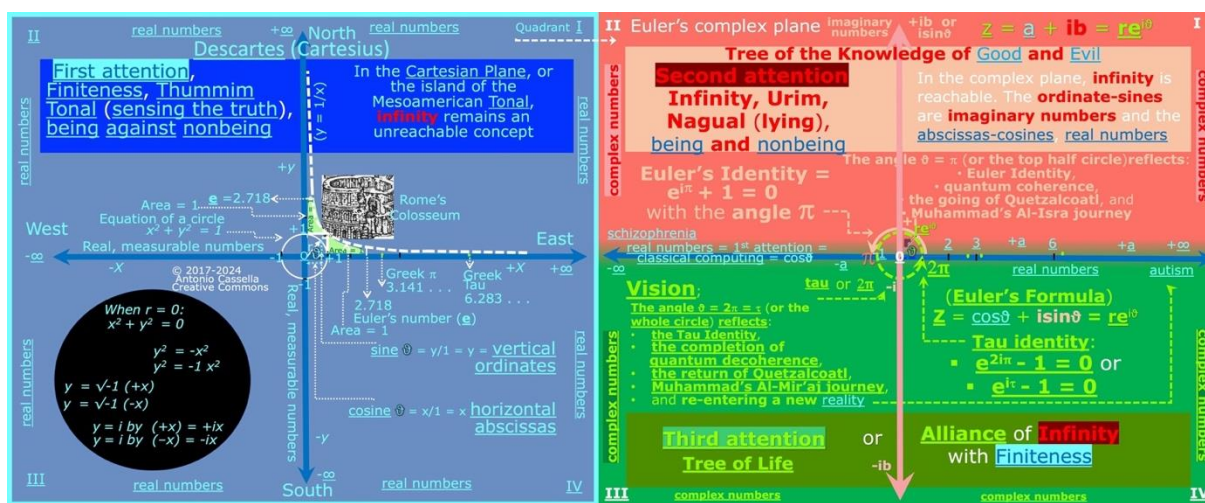


Figure 4. The autistic-like Cartesian plane (left) and the creative Complex Plane (right)

Leonhard Euler devised the symbol “i” for the **imaginary square root** of -1. Also, he replaced Descartes’s “Y” axis with an **imaginary axis** that contained positive and negative multiples of **i**. In a stroke of genius, Euler created the complex plane, ruled in polar coordinates by his formula  $Z = \cos\theta + i\sin\theta = re^{i\theta}$ . Although *Euler never worried about it*, when the radius of his polar coordinates equals unity ( $r = 1$ ), his formula  $Z = \cos\theta + i\sin\theta = e^{i\theta}$  leads to two identities:

- The **Euler Identity**,  $e^{i\pi} + 1 = 0$  corresponds to **infinity** and my **2<sup>nd</sup> attention** (red in Figure 4), since it ends in the varying angle  $\theta = \pi$  in radians (from +1 to -1), located on the **upper semicircle** of the complex plane, whereas
- the **Tau Identity**,  $e^{2i\pi} - 1 = 0$  (with  $\theta = 2\pi$  [Greek tau, or “τ”]) **includes** Greek π within the **3<sup>rd</sup> attention** (from the original +1 to a new +1), or the **alliance of quantum and classical computing, infinity and finiteness**.

All the complex plane should be green. But I colored **green** only its bottom, for the **devil**, the **mad**, and “**un-repented**” **liars cannot return**. Complex numbers can be seen as points in the complex plane. Yet **complex numbers** and the red angle π (in my **2<sup>nd</sup> attention**) denote our **freedom** to struggle with the temptations posed by the **devil**. By contrast, green **complex numbers** go only with the bottom of the **complex circle**. The angle 2π hints that our **struggle** with the **devil** in the top half of the complex circle can succeed under the **doubts**, **hope**, **prayers**, and **grace** of the **Holy Ghost**. Else, we would perish with the **devil** or in the arms of **madness**. God is the sole **judge** of each **liar**, a fact that he **knows** beforehand. God **knows** if a **liar** will **repent** or not in life. Unlike the **brotherly finiteness** (e.g., **grammar**) imposed by a **ruler**, **infinity** (or **pragmatics** before **reading**) makes each of us responsible for **loving** God and others in **life**!

From the vertical **asymmetry** of human faces and their horizontal **symmetry**, a 90° turn directs Descartes’ **finiteness** into the **cosines-abcissas** of the complex plane. Alike, the **positive sines-ordinates** of the complex plane parallel the top part of the **imaginary axis**, rooted in the **lying “tree of knowledge.”** The bottom and green **union** of **cosines** and **sines** makes the “**tree of life**” and the **complex plane**. For me, the red **complex plane** greets the **freedom**, **hope**, and **doubts** of the **2<sup>nd</sup> attention**; and the green **complex plane** hails our **return** to a new **reality**, within our **3<sup>rd</sup> attention**.

Richard Feynman (1985) had his “quantum electrodynamics” in any quadrant of the complex plane. He prized Euler number (e), the imaginary unit (i), Greek  $\pi$ , unity (1), and nothingness (0) in **Euler’s identity**. Yet he did not see the union of asymmetry and symmetry in the Tau Identity (with angle  $2\pi$  in radians). The angle  $2\pi$  allows us to start from +1 and return to a new +1. Lying only (red color in the “tree of knowledge”) cannot grab the “tree of life” (green color). Lying does not feed growth. However, Feynman added at CALTECH a step in the stairs of progress.

*No one can go back.* We must turn counterclockwise and either lie with the devil ( $\pi$  and Euler identity) or lie ( $2\pi$  and the Tau identity) with the Holy Spirit. As the third attention ( $2\pi$ ) contains the second attention ( $\pi$ ), no one can return without going first. E.g., Muhammad did return to the Black Stone in Mecca and the Buddha conceived meditation and his name “Tathagata” (“Thus returned”). So, if we love God and repent, we will return to a new +1.

The devil can tempt us only in the upper half ( $\pi$  in radians) of a personal circle ( $2\pi$ ) inspired by the Holy Spirit.

Leonardo da Vinci proved indirectly that a circle could be squared through infinite steps. Thus, the equation  $2 = \sqrt{\pi r^2}$  says that “2” becomes the side of a square equivalent (in area) to a circle of radius  $r = 1.128379167$ . . . to infinity, while  $(\pi r^2)^{0.5}/2$  suits squaring half a circle or the lying devil. Lying (or infinity in quantum computing) bridges two opposite locations of classical computing. But most liars (excepting saints and “gurus”) use the bow of lying (from +1 to -1, or  $\pi$ ) to boost their brotherly 1<sup>st</sup> attention. Thus, un-repented liars will fall with the envious devil or embrace madness (-1), under the angle  $\pi$  in radians. They cannot return ( $2\pi$ ). Yet lying to help others live will renew an old +1 into a new +1 ( $2\pi$ ). I posit that that route is still open to us and the cosmos as in the creative route of the 2008 film “The curious case of Benjamin Button”. That film became real because all creative participants leaned on infinity.

1.4 The Evolution of the Cosmos, the Universe, and the Anti-Universe

Figure 5 shows the role of infinity to boost life during the cosmos’ cycle of 35.2 billion years. Does time advance or does it go backwards and advance at once as does a reverse-aging Benjamin Button in crossing his dear Daisy?

Because our universe started expanding 5 billion years ago, I surmised (Cassella, 2019) that each quadrant of the complex circle corresponds to 8.8 billion years. The expansion of the cosmos in quadrants I and II would correspond to Euler Identity; and its contraction into two Big Crunches and a new Big Bang, to the Tau Identity. Again, notice that the Tau Identity (with  $\theta = 2\pi$ ) includes Euler’s Identity (with  $\theta = \pi$ ), or that the 3<sup>rd</sup> covers the 2<sup>nd</sup> attention.

Since we live less than 35.2 billion years, imagining an infinite nature would leave behind Darwin’s chance and need in favor of a divine evolution. Also, since a major portion of the original “dark matter” evolved into the “dark energy” to which we attribute the present expansion of the cosmos, I surmise that in 3.8 billion years (at the start of accelerated contraction in the third quadrant), dark energy will start changing again into dark matter. Abduction logic leads me to positing that the “fast-track” galaxies found by the James Webb telescope are a remnant of the previous cycle of the cosmos. Along the curvature of Euler’s complex circle ( $2\pi$ ), change stays unseen. And yet sudden change does occur.

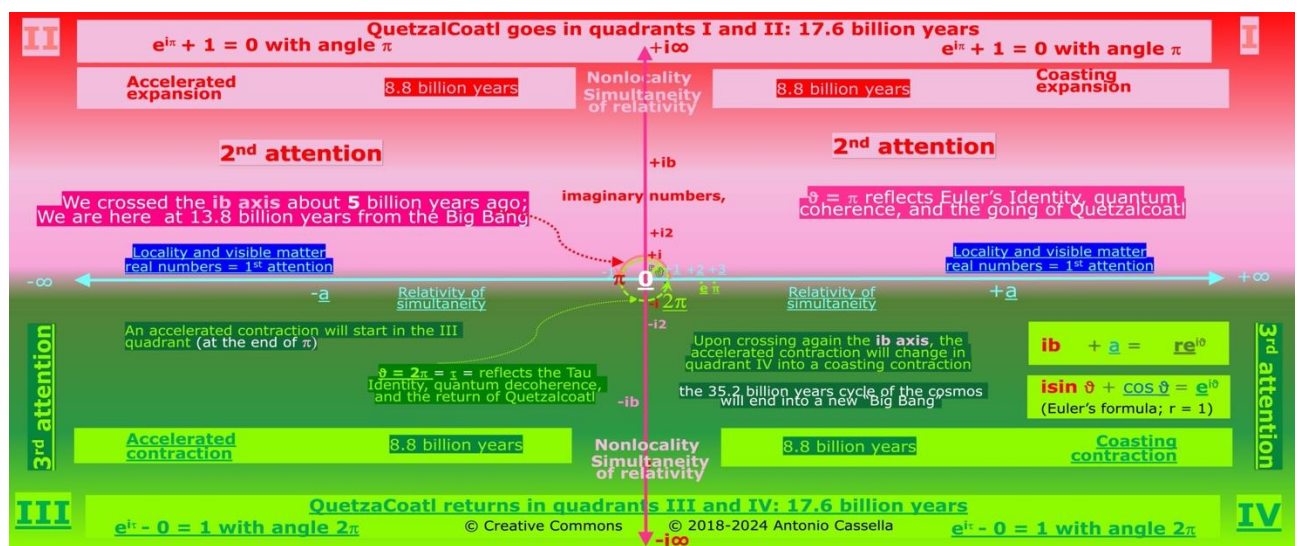


Figure 5. The 35.2-billion-year evolution of the cosmos

In Cassella (2019) I stated that a matter coupled to an antimatter spacetime (joined by the infinite speed of the sines of the complex plane) would solve the cosmological constant problem. Within this problem, the observed value of the vacuum energy density is 50 to 120 orders of magnitude (e.g.,  $10^{120}$ ) lower than the value advocated by quantum field theory (McEvoy and Zarate, 1999). I posit that two symmetrical universes were created from an original

*matter/antimatter separation. In my view, the algebraic sum of opposite vacuum energy densities united by an infinite speed would give the low cosmological constant observed and the union of Einstein's relativity with quantum physics.*

Dark energy reflects expansion or contraction, whereas dark matter feeds specifically the gravity needed in each universe. Lastly, I posit that both dark energy and dark matter feed the remake of cosmic life under the Tau Identity.

The complex plane would satisfy the second Einstein's hypothesis of a complete theory. Einstein ended his 1935 article with Podolsky and Rosen by stating that a complete theory (e.g., the emptiness of Japanese Zen) is possible. He fought Niels Bohr's adoption of probability because he felt that probability alone would never explain the cosmos, life, and intelligence. Unlike Feynman, though, the 2nd Einstein never saw the role of complex numbers. Unless we embrace infinity, we cannot get the master smile of a baby or the infinite discourses we create with finite words.

Voigt hid the imaginary bearing of infinite hyperspace as Alice in Wonderland (Carroll, 1865) hid her dreaming (on the "Y" axis of the complex plane) behind the noises of the real world (the "X" axis). Finiteness parts cerebral autistic order (+1) from cerebellar disorder (-1), as does a street in London in which devilish motorists should allow pedestrians cross safely through a zebra crossing if they set a foot on the street. Most motorists do not. Yet if our cerebellar infinity (or our 2nd attention) does not yield to the devilish comfort sought by the first attention (e.g., food, thirst, and sex), any living system may undergo a return (green in Figures 5 and 6) with the Tau Identity. Quadrants I-II fund our freedom to sin; and quadrants III-IV, our return home (+1), if we repent. Unrepented liars join the devil.

By halting temptation (in  $\pi$ ) through the Holy Ghost (in  $2\pi$ ), any creature can reach the 3rd attention (e.g., an apple kaki). Voigt stressed that a "Shining Sphere" governs the cosmos. If nature rested on the empty vertex of a virtual sphere, it would always view its equatorial plane. Whether the sphere turned counter or clockwise, finite causation on the "X" axis and infinite reversal on the "Y" axis would feed the return of symmetrical universes (e.g., our eyes).

In Cassella (2019) I stated that a universe of antimatter opposes the universe of matter we observe (Figure 6). Of course we may assume that our universe is antimatter and that our electrons have a positive sign. Based on physics, Latham Boyle, Kieran Finn, and Neil Turok (2018, 2022) have advanced the same ideas I described through psychology (Cassella, 2019). Boyle, Finn, and Turok criticize Guth's and Silk's (1997) unnecessary magnetic dipoles and inflation.

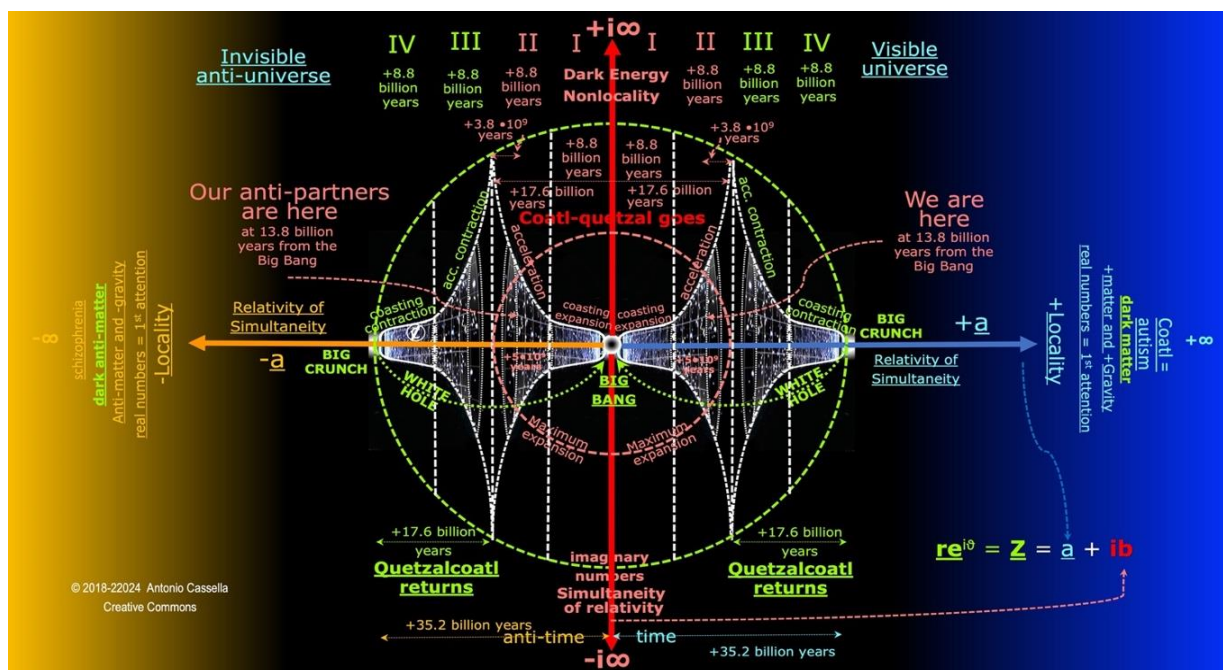


Figure 6. The 35.2-billion-year evolution of the universe and the anti-universe in four stages

In my assumed vision of our natural roots, magnetic monopoles can keep separated the universe and the anti-universe.

### 1.5 The Three Attentions/Intentions of Nature and Humans' Intelligence

I posit that Voigt's math values three aspects of nature and of the human intelligence that Euler strengthened in Russia:

- 1) the neighbor split from us in the here and now illuminated by the finite speed of light advanced by the 1st Einstein;
- 2) the infinite going movement (or lying) by which our superluminal speed betrays a neighbor; and
- 3) the "shining sphere" on which God blesses life, any true love, and the theory that Einstein never expressed.

If **Leonhard Euler** had been in Rome, he would have liked the Pantheon he had read about. As Figure 7 shows, the Roman “Pantheon” (“Any god”), built by **Marcus Agrippa** (Augustus’s friend and advisor) and rebuilt by the Roman Emperor Hadrian, shows the emptiness of **nature** on its top. Defying the Hindu Sir C.V. Raman, we can **see** the **horizontal symmetry** of living beings (e.g., in the **Holy Ghost** **symmetrical** part of the **Sign of the Cross**). Euler’s complex numbers take two axes of space (“**X**” and “**Y**”) in turning counterclockwise (I, II, III, and IV in Figure 5 and 6). Thus, *the complex plane in Polar coordinates may become the equator of Voigt’s **shining sphere**, or **Riemann Sphere**.*

The Roman Pantheon, with the biggest concrete dome in the world, has a **central opening** in its top. The radius of the dome of the Pantheon matches the distance from its equatorial circle to the floor. A **sphere** (Riemann’s, Voigt’s, or a rotating angle  $2\pi$ ) could be had between the cupula of the Pantheon and its floor (Figure 7).



Figure 7. The dome of Rome’s Pantheon could accommodate a virtual sphere

At first sight, Voigt may seem a forgotten actor in the history of science. His transformations precede Einstein in recognizing that a **finite speed of light** and **special relativity** attach the Doppler effect to Galileo. The term  $c^2$ , though, makes us first **hypothesize** and then **conclude** that Voigt **went beyond** the **second Einstein** in **valuing** the **alliance** of **finiteness and infinity** (or **relativity and quantum physics**). Isolated **infinity** is only a **devilish traitor**. Examples are **infinity’s swapping** a **cause** with its **effect**, or **Jesus soaking bread in wine** to feed the avarice of **Judas Iscariot**.

Voigt’s and Riemann’s **complex equatorial circles** arise by **allying** the **relativity of simultaneity** (or the **classical computing found** by Einstein in 1905) with the **simultaneity of relativity** (or **quantum computing**). That **alliance vivifies matter and anti-matter** behind **massless** photons of light. E.g., in his books “Alice in Wonderland” (Carroll, 1865) and “Through the Looking Glass” (Carroll, 1871), Charles Dodgson stressed the apparent **violations of spacetime in dreams and fantasy**. He even **froze** time in a Tea Party with a Mad Hatter, a Dormouse, and a March Hare.

We like animals in **fantasy**, since in **reality** we have destroyed half of Earth’s nonhuman species (Leakey and Lewin, 1995). *Yet we better stop from breeding like stink bugs. If we do not **get the meaning** of the **smile** shared by two **strangers** in a church, both the “**tree of knowledge**” behind our **lies** and the “**tree of life**” behind our **lives** will vanish.*

We should **wake up!** Penn and Deutsch (2022) assert that global warming *will bring a heavy loss of marine species and food*. I reassert here and now that *in less than 30 years global warming might even bring the death of one billion children under a chaos worse than the one caused by Lisbon’s earthquake in 1755*. Again, my **putative vision** contains three attention-intentions:

1. **classical computing** as the **rigidity** of autistic reality (+1) opposed to **schizophrenic unreality** (-1) in the realm of a **finite speed** and our **FIRST ATTENTION**, centered in our **cerebral cortex** and the “**X**” axis of complex numbers;
2. **quantum computing** as a manifestation of the **flexibility** of **fantasy-dreams-doubt-sins-lies** in the realm of the **infinite speed** of the **SECOND ATTENTION**, our **cerebellum**, and the “**Y**” axis of complex numbers; in addition to
3. their **alliance** into the **THIRD ATTENTION** (**charity, renewal, irony**), centered in our **cerebellar microcomplexes, brainstem, and returning complex numbers**.

I am not criticizing the first Einstein’s view of a **finite speed of light** (Michelson and Morley, 1886). Einstein’s position follows the Doppler effect sensed in our daily experience. Equally, I follow Voigt’s transformations in assuming that the cosmos leaves the Doppler effect to **Galileo**, the “**X**” axis of the complex plane and a **finite speed** of light ( $\gamma = 1$ ).

In the “**Y**” **direction** of Voigt’s transformations, however, the **cosmos** may accommodate a **flexible time and space**. The cosmos welcomes Lewis Carroll’s **dreaming Alice** in a **superluminal** (or **infinite**) speed that **is and is not at once**. A **fantastic Alice** will continue **educating** our descendants if we **return** to the population and poverty we had before 1826.

1.6 The Principles of Classical and Quantum Computing

Yet we cannot **return** unless most **liars** accepted a **vision** (logos, or “Λ”) of **life**. **Kong Fuzi and Laozi allied** long before the **meditation** that the Buddha and Bodhidharma sent to China as “Chan” (known as “Seon” in Korea, and “Zen” in Japan). Although **Kong Fuzi** remains on the “X” axis of complex numbers, **Laozi returned** by **creating** the “**Tao-Te-Ching**.” Chan, Seon, and Zen evoke the **alliance** of **finiteness** with **infinity**; and sexual connotations as well.

Nature **follows** the **masculine** and **feminine** ten (or more) principles heralded in Figure 8. E.g., a **geisha replying** “**but**” to the **fixed belief** of a **samurai** would fit the **green portion** of the plane of **complex numbers** (“X” and “Y” axes).

My website (researchautism.com) describes the neuropsychological tests called **proper self** (Povinelli, Landau, and Perilloux, 1996) and **Zaitchik-photo task** (Zaitchik, 1990) mentioned in Figure 8. But suffice to say that autistics beat nonautistic subjects (Cassella, 1997) in **passing them**, whereas autistics fail **appearance-reality** and **false-belief protocols** (in the same way that they fail to use **pronouns** correctly [Cassella, 1997, 2000, 2002a, 2002b]). Autistics lack the **cerebellar infinity** (or the **vertical axis** of the complex plane) needed to handle **pronouns**, to **lie**, to entertain a **false belief**, and to **conclude** (in **appearance-reality protocols**) that a **marble egg is not really** an egg.

Autistics and our autistic side **see** only the **finite X Cartesian axis** of the complex plane. Autistics **fail false-belief protocols** (Baron-Cohen, Leslie, and Frith [1985]; Baron-Cohen, Tager-Flusberg, and Cohen [1993]; and Baron-Cohen [1995]) for they lack **infinite fantasy** and the **devilish** capacity to **lie** on the “Y” axis of complex numbers.

Figure 8 shows that **finiteness** and **infinity** are fed by **ten (or more) principles** (Cassella, 2017a, 2018, 2023) (Figure 9).

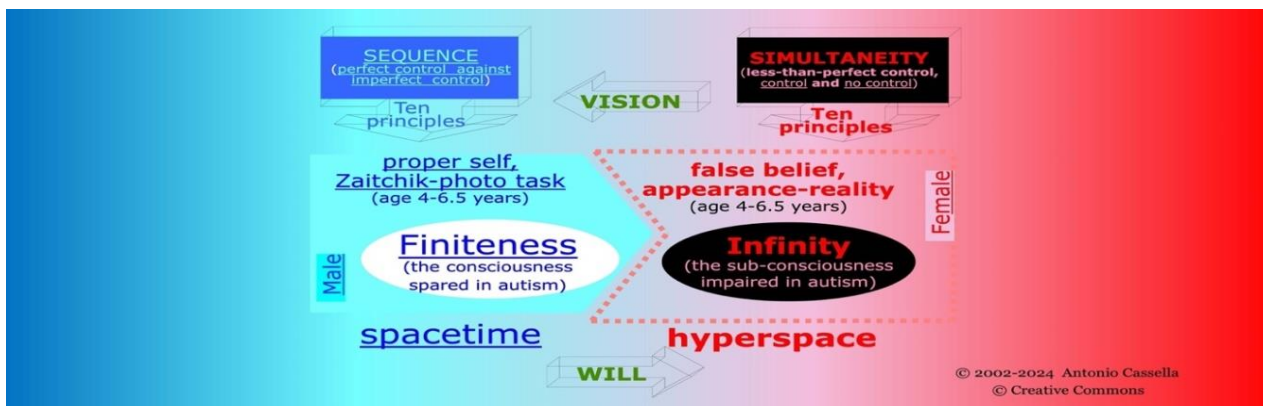


Figure 8. A sexual interpretation of nature and divinity.

Consider the 8<sup>th</sup> principle at the right of Figure 9, by which an effect can be exchanged for its cause within infinity.

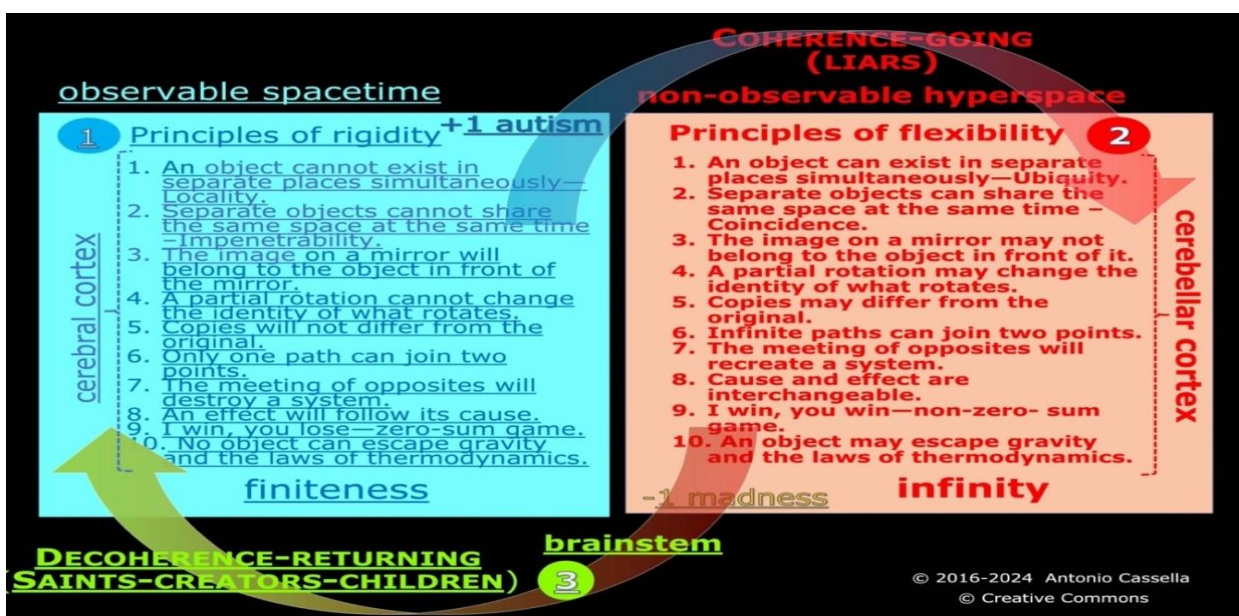


Figure 9. The alliance of the male principles of finite rigidity (blue) with the female principles of infinite flexibility



The **alliance** of **finite rigidity** **and infinite flexibility** fills **nature's nature** and **creative discourse**. Why would the **structure of the cosmos** differ from the **combination** of **brotherly vertical asymmetry** and **horizontal symmetry** in our **face** or a **leaf of grass**? **Readjusting reality** through **lying** is a *personal commitment*, as were the **lies** of the dying St. Cepparello da Prato (*the most perverse human who ever lived*) in Boccaccio's "Decameron." In seizing **infinite speed**, each of us **endangers** the self. But we can **save** the self and some others *before dying*, as did **St. Cepparello da Prato** by **lying**. We can also **create** an artwork, as **did** Shakespeare in "Hamlet," Walt Whitman, in "**Leaves of Grass**," Richard Feynman at Caltech, Voigt at the University of Göttingen, and Riemann by lecturing to Voigt in that university.

### 1.7 Richard Feynman, Voigt's Shining Sphere, and Riemann Sphere

World leaders can **save** the remaining nonhuman species and our descendants from perishing after suffering untold humiliations. Here, I try once more to explain my **putative vision** ("Λ" or logos) of nature, the cosmos, mysticism, and intelligence. **Richard Feynman's** (1985) embedded his operations with vectors in a complex view, although he skipped the **Tau identity**. Figure 10 offers my psychological vision of Voigt's and Riemann's spheres. My engineering background, Harvard University, and my exposition to the lessons imparted by Dr. José Padrón (1996) at UNESR (Universidad Nacional Experimental Simón Rodríguez) in Caracas (Venezuela) helped. They helped me to putatively **view natural intelligence** (wronged in **autism** and **madness**) as the **alliance** of **asymmetrical finiteness** (vertical in the living and **horizontal** along the "**X**"-axis) **and symmetrical fantasy** (vertical along the "**Y**" axis of the complex plane).

The **hatred** that we experience for our **enemies** (-1) and the **brotherhood** we feel for our friends (+1) belong only to the "**X**" axis in Voigt's and Riemann spheres equator. Descartes' "**X**" **Cartesian axis** hosts the first four principles of Euclid.

The **flexibility** of Euclid's Fifth Principle on a **spherical surface** escaped **Illuminism**. E.g., on a sphere with *constant positive curvature* (elliptical geometry), *one triangle might have three right angles*; and on a *saddle with constant negative curvature* (hyperbolic geometry), *one pentagon might have five square angles* (Darken, 2022).

Woldemar Voigt's Shining Sphere and Riemann Sphere **suggest** that **nature** chose Euclid's **elliptical geometry**.

I hope that readers of this article will **read** it with the **patience** that autistics **lack**. Also, that they may cooperate with an effort (fundingresearchautism.com) unsound to old fellows. Indeed, no **vision** of Voigt's sphere can escape death.

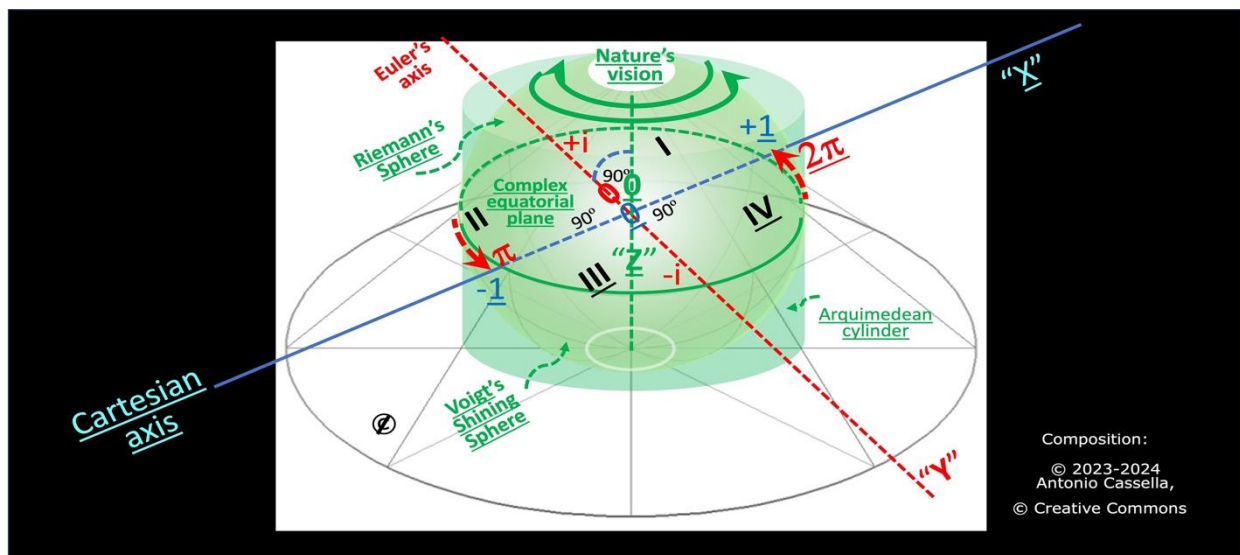


Figure 10. A psychological interpretation of Riemann Sphere and Voigt's Shining Sphere

There should be no need to surpass the **alliance** of the **finiteness** of **real numbers** (left unchanged by Euler along the "**X**" axis of the complex plane) with the **infinity** of **imaginary numbers** on the "**Y**" axis. Yet Voigt and Riemann devised a **sphere** with an equatorial complex plane as **Euler** thought it in Russia and **Feynman** used at CALTECH.

**Riemann** and **Voigt understood** God's aim to **judge** our personal **freedom** (2<sup>nd</sup> attention) to finally **sink** in useless madness or **swim**. I would like that my explanation allowed any person to **return**. Yet my **dream** is to avoid global warming and the death of one billion children before we all **return** to poverty, the scarcity of humans, **and** a richer **life**.

**Freedom** corresponds in the first place to **doubt**, **hope**, **infinity**, and **quantum lying**. E.g., **lying politicians** must remain sensitive to subjects gifted with a **capacity to lie**, which most of them do not **use** to **read** their Sacred Texts. Instead of **reading**, most **liars** **fatten their bank accounts** while **exploiting their neighbors**. Yet if their neighbors are **clever**, **fanatics** will fall into their **devilish** traps. **Getting** Moses's **alliance** of his **Urim** and **Thummim** crystals

(Katznelson, 1991) *might* save all **malicious liars**. Even if **quantum computers** (AI, Artificial Intelligence) retain **doubt**, they will remain deficient. I **doubt** that bankers will fund AI machines capable of regret or of an artist's genius.

### 1.8 Location of the "Fight for the Standard" by Leonardo da Vinci

I located Leonardo da Vinci's "Fight for the Standard" (Cassella, 2017b, 2022), in the upper hall of Florence's Palazzo Vecchio, by expanding a scene and destroying the perspective used by Giorgio Vasari in his "Battle of Marignano" on the upper part of Figure 11. I realized (after making a mistake; Cassella, 2016) how Leonardo used **infinite imagination**.

If Leonardo's "Fight for the Standard" *with dimensions of 6.20 meters in length by 4.20 meters in height* (Figure 11) were not found in that hall, I would have to change some claims of my logos ("A") heuristics. E.g., in a  **baffling world**, in which God is the judge, Jacob/Israel had to act with prudence toward Esau's armed cohorts of lawyers.

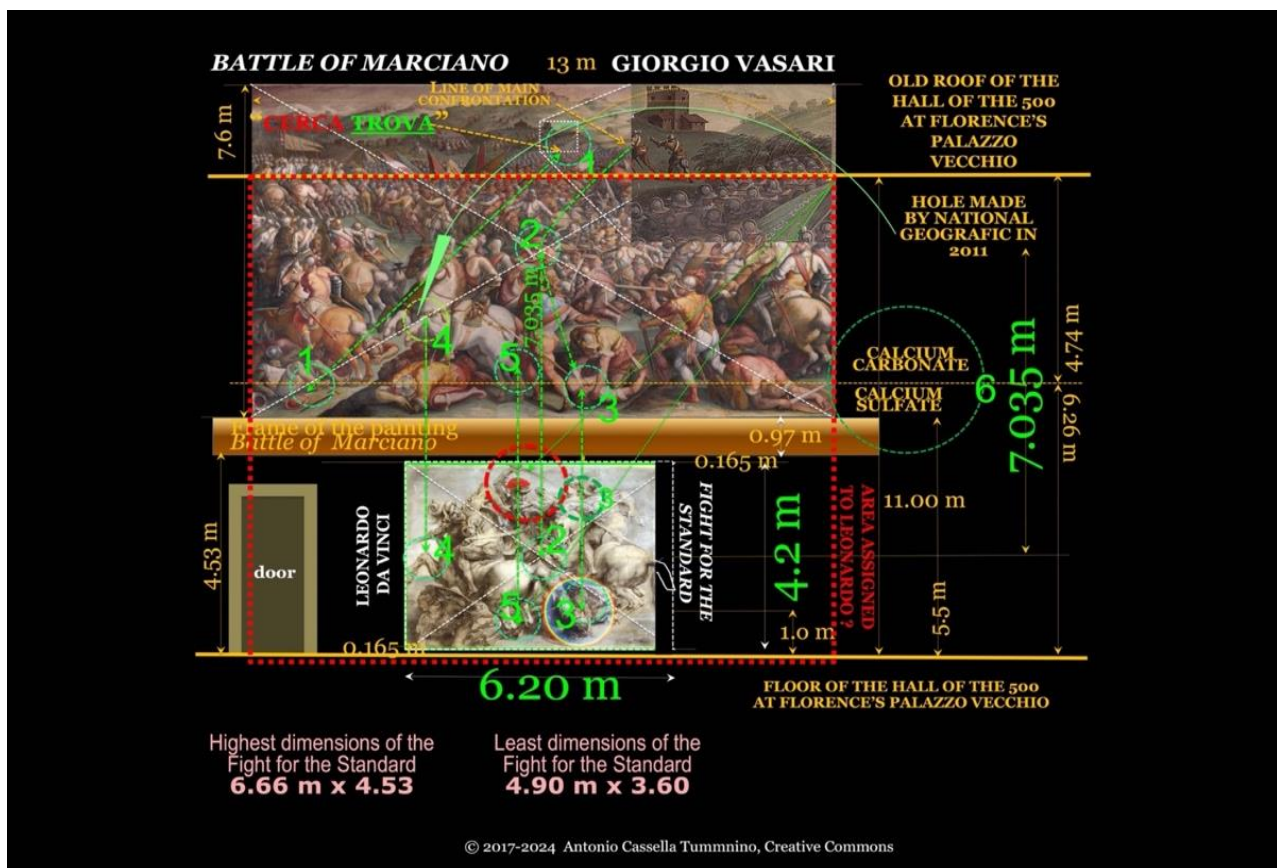


Figure 11. The location and dimensions of Leonardo's "Fight for the Standard" in Florence's Palazzo Vecchio

**Prudent** readers **might** view that Riemann's and Voigt's spheres are as real as is the alliance of finiteness with infinity. The complex numbers that feed Riemann's and Voigt's spheres imply that true love transcends sequential causation (and even death), as proposed by any Sacred Text. I believe that Voigt's math validates Riemann's math by leaving his readers **free** to abduct the truth under a psychological umbrella. A mathematics realistic only to mathematicians able to pay a million dollar prize cannot convince common **liars** to change lying for lying. My 1994-2000 research in Harvard University, the nearby MIT/CEEPRs, and UNESR in Venezuela allows me to **putatively place** Voigt and Riemann into the heartly vision I try to convey here. As with Walt Whitman, I **hope** that my **dream will come true**.

## 2. Method

In the Background Section, I describe key past happenings. In the subsequent Discussion, I use most facts to prove both the insufficiency of our inherited capacity for **lying** (within the **infinite speed** of **quantum computing**) and our possible return to a renewed classical reality. Readers with little time can jump to my Concluding Remarks section right now.

## 3. Hypotheses

Null: Relativity (or finiteness) may ally with **quantum physics** in any natural living being. Alternative: Relativity cannot ally with **quantum physic** (or infinity).

## 4. Results

Cassella (2002b, reviewed in 2017) and Cassella (2013) quantify my research in Harvard University, MIT, and UNESR.

## 5. Background

### 5.1 The Role of Neanderthals

In the Middle Paleolithic (about 300,000 years ago), the few Neanderthals around liked the protection of fire, tools, and goods offered by the caves they found. They may have noticed then that a drop of **water** from a cone-shaped stalactite would generate a similar stalagmite. By cutting stalactites or by examining fallen stalagmites they also learned about conics (circles, ellipses, parabolas, and hyperbolas). Neanderthals placed stalagmites and stalactites into forming ellipses and circles (an ellipse with one **focus**) in French and Spanish caves about 300,000 years ago. That act suggests that before vanishing (some 40,000 years ago) Neanderthal **philosophers** sent word of **recreative ambiguity** in the **nothingness** at the center of any **circle** to other **sages** in Northern Europe, Russia, China, Turkey, Iran, and Egypt.

### 5.2 The Role of Philosophy

Unlike Neanderthal **philosophers**, in the 5<sup>th</sup> century BCE (Before the Common Era) the Sicilian “**philosopher**” **Parmenides** (the founder of classical logic and science and a champion of the finiteness that led to the 1<sup>st</sup> Einstein) blasted the **infinity** preached by **Heraclitus** in Ephesus, part of Greek Ionia (now Turkey). **Parmenides** (Cerri, 1999) accused **Heraclitus** of **having** a head saying “**yes**” and one saying “**no**,” which was contradictory in a logic agreed later by **Aristotle**. Heraclitus loved to bridge “**yes**” (+1) and “**no**” (-1), as in tensing a **bow** and a **lyre** (Fragment 51).

In his fragment 51, Heraclitus praised the union of opposites in a **tensed bow**. He implied (Cappelletti, 1972) that a tensed **bow** could be used to find a **new interpretation** or to **kill** (e.g., the bow and arrow that killed Achilles in the war of Achaeans against Trojans). Few people understand Heraclitus’ philosophy in his belief that war (e.g., mutual incompatibility) sustains **recreation** (e.g., matter and antimatter enliven each other).

Plato never grasped Heraclitus’ **aphorisms**. And yet he wrote the dialogue “**Parmenides**” after writing his dialogue “**Meno**” (Hamilton and Cairns, 1973). In “**Meno**,” Plato valued memory and the finite world of perfect ideas. The “**Parmenides**” **challenges** the **intellect** of any human being, notwithstanding the fact that 98% of us (excepting 1% of autistics and 1% of unmedicated schizophrenics) can **lie**. Again, Plato emphasized the value of finiteness in “**Meno**” and the value of infinity in his “**Parmenides**.” One may conclude that Plato did **realize** that finite sequence could **ally** with **infinite simultaneity** in feeding **life** (e.g., our body’s capacity to repair a broken rib).

### 5.3 The Transformations of Woldemar Voigt in Allying the Relativity of Simultaneity with the Simultaneity of Relativity

In the Introduction, I showed that Woldemar Voigt did more than precede Einstein in establishing the relativity of simultaneity within classical computing. He also pursued the **simultaneity of relativity** in implying the **alliance** of **finiteness and infinity**. Instead of using Einsteinian light, however, I considered (Cassella 2019) sound.

Imagine a 50-meter hall in which one extreme is taken by a male teacher placed under a “school bell,” in opposition to another extreme in which another male teacher is placed under a bell that sounds as “London’s Big Ben.” Although the sound of the school bell and the Big-Ben bell are emitted electrically and **simultaneously** by an invisible operator in the center of the hall, the first teacher will always say that the school bell sounded before the Big-Ben bell; and vice versa for the opposite teacher. According to Einstein (of the year 1905), simultaneity is relative to the location of an observer.

However, suppose that we place two **female teachers** at opposite extremes of the 50-meters-long hall in which the school bell sounds **concurrently** with the Big-Ben bell (Cassella, 2019, 2023). We may be surprised by the fact that the two **female teachers**, after hearing each other’s divergent answers in response to the relativity of simultaneity, would **converge** (by the **power** of the **simultaneity of relativity**) on saying that the sounds were emitted **simultaneously**.

The only answer for their **astonishing feat** would be assuming that the brain of women goes by the **simultaneity of relativity** and **infinite speed**. After seeing Shakespeare’s “Macbeth” and the **witchy** mode by which Lady Macbeth convinces her husband to kill Duncan, the real king of Scotland, one could not advance the view that women are **smarter** than men. Her ambition presses the **devilish Lady Macbeth** into suicide, while the ambition of **Macbeth** as the new king of Scotland blinds him to using for good the **power** of **magic, doubt, lying, and betrayal** in **witches**, women, and men. Since all nonautistic humans are *born liars*, males too court **lying** in their cerebellum.

If 98% of world population (excepting 1% autistics and 1% mad) is composed of **liars**, right now (02/10/2024) there are nearly 8 billion **liars** in the world. Unmedicated schizophrenics (perhaps a condition of Vincent van Gogh) may resemble autistics. However, we must realize that infant autistics cannot **go**, whereas adult schizophrenics cannot **return** (Cassella, 2018, 2023). The strain of autistics to **go** and of schizophrenics to **return** support three attention/intentions. Not going **beyond lying** (the 2<sup>nd</sup> **attention**), though, will multiply the number of people pursuing the American Dream.

5.4 World Population and Preston's Curve

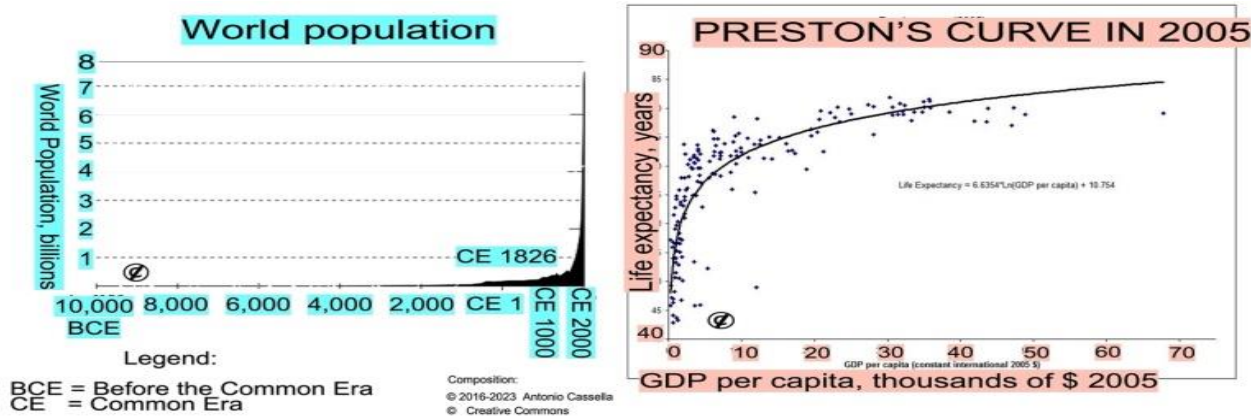


Figure 12. An historical view of world population and Preston's Curve in 2005

World human population has grown from one billion *about two centuries ago* to *about eight billions now*. According to Samuel Preston (right of Figure 12; Preston, 2007), after a nation defeats early death by arriving at an average income of 5,000 \$ (of 2005) per year, its inhabitants will seek the American Dream (an income of 70,000 \$ [2005] per year).

If India and Nigeria follow the fiscal growth of China in the last 40 years, the *problem of excessive human population* will be compounded by the desire to fatten our bank accounts, to buy a bigger (but cheaper) car, and thus contaminate more the atmosphere. Yet **infinite fantasy** invites us to **avoid** global warming and **save** life in humans and nonhumans.

5.5 Liquidating Nonhuman Species

Leakey and Lewin (1995) proved the liquidation of half nonhuman species in the Common Era. Figure 13 shows the trigger-happy attitude that has allowed us to multiply our number, while reducing the number of other species. The blame of the ongoing destruction of nonhuman species, under the 6<sup>th</sup> anthropogenic extinction, cannot be given to Neanderthals or to the Homo sapiens hunter-gatherers they **educated** before vanishing. The blame rests on our **quantum intelligence**, ready to **lay a pact with the lying devil**, instead of **pursuing Hamlet** in **lying** to **search** for **love, charity, and justice**.



Figure 13. Nonhuman inferior species have always made the easy prey of devilish humans

Nonhuman species are an easy prey (Figure 13). Unlike us, they cannot **link concepts** (meta-represent), nor **reinterpret** their sensations through **quantum computing** (red in Figure 14). At the age of two months, infants show their **master smile**. That and the ability for **eye shifting** (Watson, 1994; Johnson, 1994) suggest that the **devil** and **lying** are **genetic**.

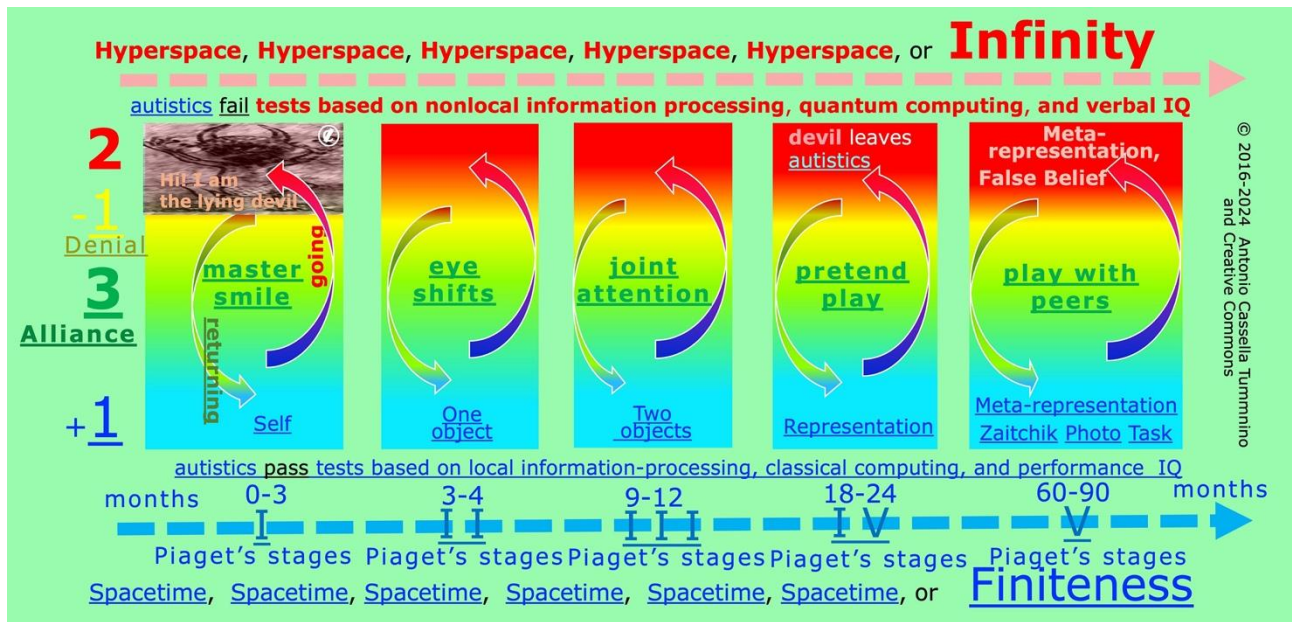


Figure 14. The five stages of infant development found by Jean Piaget

The Swiss Jean Piaget (Piaget, 1983) found that infants learn how to link concepts in five stages, from birth to the age of 7.5 years. Modern academics, though, have found that after age 6.5 years all children reach meta-representation.

As Piaget did not have autistics in his sample, he did not realize that normal infants reach two modes of processing information in each stage: one along **infinity** (on the vertical axis of complex numbers) and one along the “X” Cartesian axis of **finiteness**. Because classical autism is innate, in Figure 14 I picture the onset of **infinity** and the **devil** in **nonautistics** since the first stage (I). Yet there are no tests to detect autism in the 1<sup>st</sup> stage (I). However, that spectrum can be detected near the end of the 2<sup>nd</sup> stage (II) through the protocols developed by Watson and Johnson.

The incidence of autism was still 1/10,000 individuals in the 80s.

In trying to avoid involution, ancient Romans just abandoned or killed impaired individuals! But autistics give up the secrets hidden by God in the “**Tree of life**” and **wheat**.

The first agriculturalists realized 11.000 years ago that in a secluded space, especially along major rivers, they could live longer, trade, and multiply. But Homo sapiens did always target inferior non-human species, from which we, nevertheless, derive (as revealed by the vertical asymmetry **and** the horizontal symmetry of the teeth of a rat).

Although nature has never ever given discounts to the weak, our **genesis** is not related to the chance and need thought by Darwin. We should respect inferior individuals now because our future and the future of our children belong more to understanding their limitations than to our **diabolical lying** in search of a long and comfortable life. E.g., autistics may reveal to us how our **capacity** for **lying** (or our 2<sup>nd</sup> **attention**) can ally with our 1<sup>st</sup> attention, within the 3<sup>rd</sup> **attention**.

We torment animals in labs that mix the cost of research with the high salaries and bonuses paid to executives of the enterprises that charge outrageous prices for the drugs that old people need to swallow. Some **politicians**, though, might realize that our **diabolical slaughter** of nonhuman species will threaten our own progeny. Also, that our **malice** can wane.

The **diabolical union** of finite animosity **and** infinite malice **linked** Agamemnon to an **Odysseus-Ulysses** who **changed** at the end of his travels, in his Ithaca island, just in time to rescue his wife Penelope and his son Telemachus.

### 5.6 Homer’s “Iliad” and “Odyssey”

About 3,000 years ago, Agamemnon, the most powerful prince among ancient Greeks, convinced them to assault Troy, since our enemies are as unworthy as the mad we electroshocked before the advent of anti-psychotic drugs. The **smartest** Greek was **Odysseus-Ulysses**, the king of Ithaca. Ulysses, the conqueror of Troy, **spanned** both autistic sanity **and** madness in his capacity to meta-represent through classical **and** quantum computing (Stage “V” in Figure 14).

Today, most people continue following **Ulysses** in **lying** to butcher our alleged “enemies.” However, **Odysseus** **changed** by crying in front of his tick-infested dog **Argos**, who was dying near the inlet door of Ithaca’s Royal Palace. Unlike Penelope’s **Suitors**, I posit that at that moment **Ulysses**, and even **Argos**, **linked** the relativity of simultaneity **with** the simultaneity of relativity. Because they too follow the union of asymmetry **and** symmetry, I do not bar dog ticks from the light that stroke Argos.

### 5.7 An Elastic Speed of Light

Finite speed in the tangible reality of the Doppler Effect belongs to the relativity of simultaneity, classical computing, asymmetry, and our cerebral cortex. But **infinite speed** and **nothingness** belong to **quantum physics** and the **simultaneity of relativity** performed in our **malicious cerebellum**. I show in Figure 14 that our capacity for linking sensations classically (lodged in our cerebral cortex) allies unconsciously with cerebellar **quantum computing** in two-month-olds. That union agrees with Voigt and magnetic monopoles *whether the transformation is luminal* ( $v = c$ ) or **superluminal** ( $v > c$ ).

The design of fusion hydrogen bombs, one thousand times more powerful than fission atomic bombs, proves that Einstein was right in suggesting to the USA's President Franklin D. Roosevelt the convenience of manufacturing an atomic bomb *before the Nazis did*. In Leo Szilard's letter, however, Einstein's signature admitted that his theory of a finite speed of light ("c") was **incomplete**. Indeed, a *squared speed of light* ("c<sup>2</sup>") evokes the facts that . . .

- light can travel at a **superluminal** or **infinite speed** (e.g., illuminating our dreams),
- **complex numbers** are real,
- Voigt and Riemann were **right**,
- a rigid goblet (e.g., the Sacred Grail) can ally with the **flexible water** or **wine** it may contain, and that
- in nature, finite rigidity allies with infinite flexibility as they do in all Sacred Texts (e.g., in the "Book of Mormon" translated by Joseph Smith within the "Church of Jesus Christ of Latter Day Saints").

Actually, I will expose Moses's and Smith's view of the two forces that feed human brains: Thummim and Urim.

### 5.8 Moses's and Joseph Smith's Urim and Thummim

In his "Genesis's" account (Alter, 1997), Moses implies that ultimate power (our **3<sup>rd</sup> attention-intention**) centers in the **heartly alliance** between two crystals, Thummim and Urim.

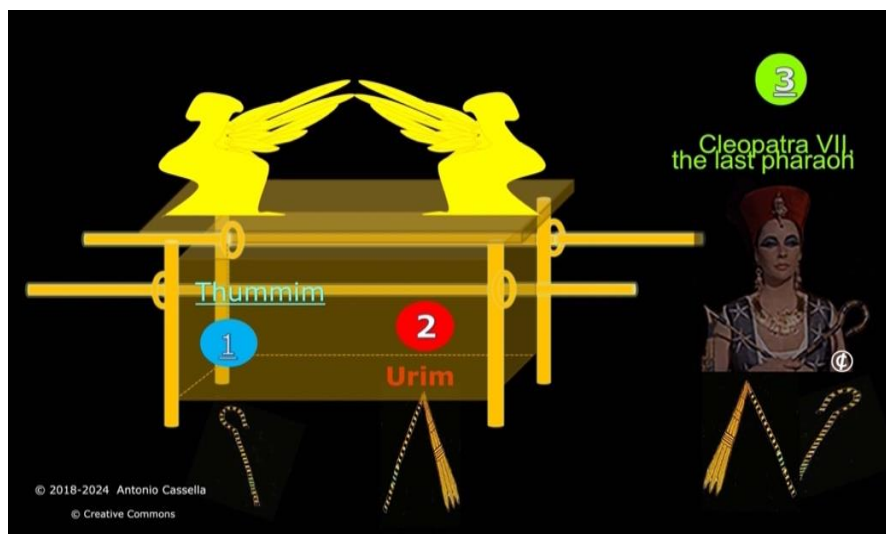


Figure 15. Moses's Arch of the Covenant

Thummim echoes finiteness; and Urim, infinity. Though Urim-infinity is unmeasurable, it is nevertheless *real*. The two crystals Urim and Thummim were sewed at the height of the heart to the ephod (priestly mantle) that Aaron, Moses's older brother, kept in the Ark of the Covenant. King Solomon valued Moses's Ark and the wisdom it emanated. Thus he kept there Moses's Thummim and Urim crystals (Figure 15), or the finiteness and infinity dear to all Egyptian pharaohs and princes of Egypt educated in the "House of Toth" that had educated Moses.

### 5.9 The Wisdom of King Solomon

King Solomon's choice to build a temple to God in Jerusalem and place the Ark in it validates the **heartly wisdom** that allowed him to give back a baby to the right prostitute-mother (1 Kings 3:15-28, KJV). The visiting Queen of Sheba concluded that the alliance of Thummim with Urim allows us to pursue riddles and wisdom in the finite "here and now." I posit that in 950 BCE she corroborated the roots of the Yin-Yang circular symbol attached to the Chinese Yellow Emperor (Figure 16). I also hypothesize that her mariners brought the roots of natural growth to the Meso-American demi-god Quetzal-coatl (Bird-serpent). Knowledge of nature's roots might have helped Quetzalcoatl to undertake a going voyage to Venus as the Morning Star (my **2<sup>nd</sup>** attention, the angle  $\pi$ , and the name Coatl-Quetzal) and a return to Earth through the Evening Star (my **3<sup>rd</sup>** attention, the angle  $2\pi$  or  $\tau$ , and the name Quetzalcoatl).

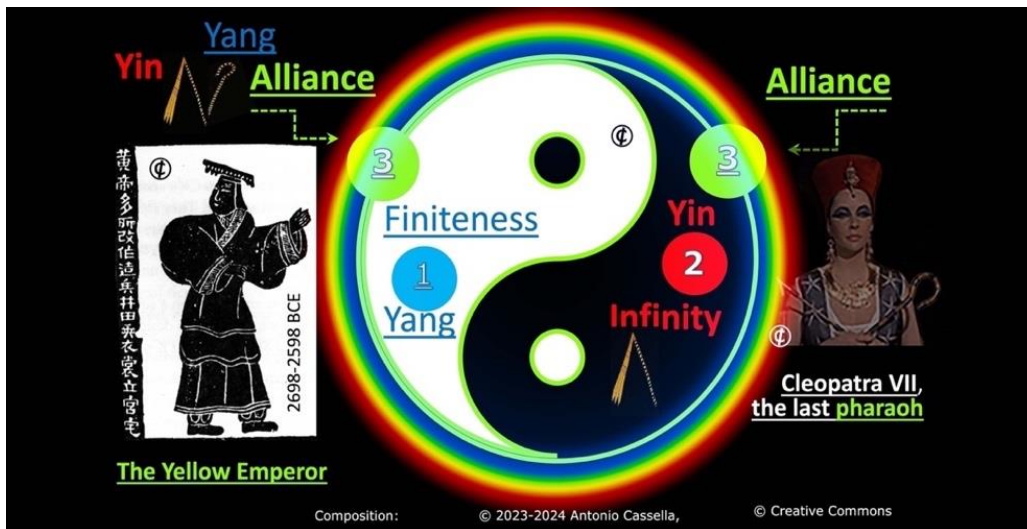


Figure 16. The Yellow Emperor and his Yin-Yang symbol

Sadly, the devotion of King Solomon to a harem of 700 women brought him the loss of his wisdom. Still, the alliance of local and nonlocal (Figure 9) principle-laws remains alive to this day in the Mexican “Tonal” and “Nagual”; also, in the meditation dear to the Chinese, Koreans, and Japanese.

5.10 *Quetzalcoatl’s local sensing, nonlocal going, and local/nonlocal returning journey.*

In Figure 9, autistic rigidity (the first-attention/classical-computing in our cerebral cortex) obeys mainly the principles that “the same object cannot exist in separate locations simultaneously” (e.g., Einstein’s finite speed of light or the relativity of simultaneity) and that “separate objects cannot share the same space at the same time” (e.g., Pauli’s exclusion principle). But nonautistic flexibility (or the second-attention/quantum-computing in our cerebellar cortex) goes by the infinite principles that “the same object can exist in separate locations” (quantum entanglement) and that separate objects may share the same space” (quantum superposition). Is not that a contradiction?

As I told Dr. Deborah Zaitchik in 2001, finite speed does not bar infinite speed, as the finite speed of an arrow does not clash with the infinite speed of the bow that launches it. The ends of a resting bow seem to oppose each other, for each occupies a different and opposite location in space (i.e., the relativity of simultaneity). But when a bow is tensed by an archeress or an archer its ends follow infinite speed by moving simultaneously (the simultaneity of relativity).

5.11 *The Importance of Tension*

David played a tensed harp to dispel bad spirits from the mind of King Saul (Samuel 16:23, KJV). David had used the same tension to kill the arrogant giant Philistine warrior, Goliath. However, after that feat, he had to use the same tension to avoid Saul’s spears. The sharpness of swords (or “Pauli Exclusion Principle”) sustains finiteness (Figure 17).

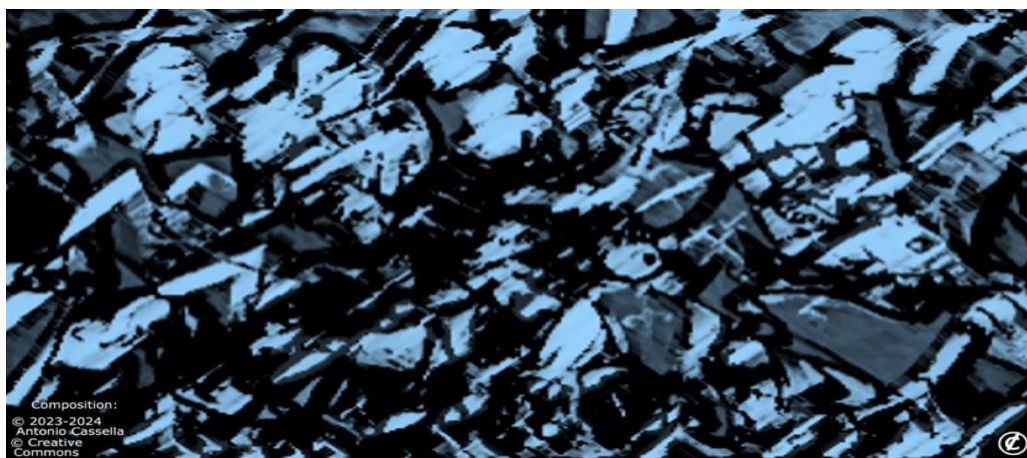


Figure 17. The lethal power of the sword used in combat by “El Cid Campeador” to conquer Valencia in Spain King Saul worried that David, and not one of his sons, would succeed him as king of Judah and Israel. His three sons

died by the sway of Pauli's exclusion principle; and he launched himself on his sharp sword to avoid **scorn** and torture.

In the late 1090s, a **sharp Castilian knight**, **Rodrigo D íz de Vivar** (called "**Cid Campeador**" in recognition of his ability with a sword **and** of his **strategy** in battling and defeating the Moors) **allied** his first to his **second attention** to unseat the Arab leader of the city of *Valencia* in eastern Spain. His **strategic thrust** **and** the power of Pauli's Exclusion Principle in his sword allowed him to **govern** the Spanish *Valencia* with his wife, the *Asturian* Doña Jimena D íz.

## 6. Discussion

### 6.1 Meeting Synchronicity

In 1989 I attended an OPEC meeting in Cyprus as part of my work of First Economist in the Venezuelan Oil Industry. I picked up my mother in Italy at the beginning of my journey since she and I wanted to see in Tel Aviv three Jewish relatives of my dead Egyptian father before visiting the Acropolis of Athens. After the OPEC meeting I took a vacation.

My mother was well acquainted with Egyptian Arab and Athenian dialects, since she had grown up in the Greek quarter of the Egyptian Alexandria. There, my Italian mother's father had a taxi business and my Alexandrian father went to an Arab School, a must for prosperity. Before going to Athens, we visited King David's tomb in Jerusalem.

My mother and I saw it inside a cave separated from a Jewish synagogue by a prison-like grating. On the side of the synagogue, an old woman prayed before the stone casket of the dead king, as if he were still alive after three thousand years. I wondered how she could believe that **King David** kept in the modern world his ability to **help** others.

A lesson about **synchronicity**, however, was on the way. We reached Tel Aviv's airport too early to enter the International Alley with its duty-free shops. Thus, we sat on a double bench in the inlet hall. On the other side sat an old couple. I became very curious about them when I heard them talk in a very old Spanish. It was the Spanish used in "El Cid Campeador," a poem written in the early Middle Ages, about one century after the Castilian "El **Cid**" had conquered the city of Valencia. Spain was still dominated then by descendants of the few Islamic Egyptians that accompanied **Gebel El Tarik** and defeated the king of the Vandals, early in the seventh century of the Common Era.

I knew about El Cid's language because I had taken the poem "El **Cid Campeador**" as a special assignment in my high-school studies in Italy. I learned it by heart. Unlike most Spaniards, I understood the written version of that poem and the spoken version as well. The couple explained to me (in their uncommon ancient Spanish) that their Jewish ancestors had been expelled from Spain with the Arabic "Marranos" in early 1492.

The Catholic Kings (Isabella I of Castille in Central Spain and Ferdinand II of Aragon in Eastern Spain) had won in 1491 the Arab Alhambra of Granada. They, however, continued using the Jewish Luis de Santángel to finance Columbus's discovery of America. In his third trip (financed by a private loan from Genoan bankers) Columbus found South America and the delta of the Orinoco River in Venezuela, a country that Columbus equated with Paradise. He could not appreciate then the **corruption power** of underground **black gold**, or the excrement of the **devil**.

The ancestors of the Jewish couple I was listening to had emigrated in early 1492 to Turkey and were allowed by its sultan to continue sticking to their traditions, while Ferdinand II and Isabella I continued to **follow** the advice of Tomás de Torquemada (head of the Spanish Inquisition). The fact that that Israeli couple spoke the same Spanish of the poem "El Cid Campeador" after five centuries suggested to me that perhaps *time could be independent from space in our minds and in nature as well*. Thanking to **infinity**, a change of space (from Spain to Turkey) matched a **freeze of time**.

My mother and I saw Athens' Parthenon in the morning succeeding our departure from Tel Aviv. I was taken then by the **grace** and **beauty** of a *statue* representing a Greek goddess ("Artemis," as I was told). She wore a "himation" (an ancient Athenian dress) over a "peplos" attire, as in the nearby Caryatid pillars; but unlike **Artemis** she had no **bow**. In the evening, we took a tour that offered dinner in front of a dancing group located on a foot-high stage. I **saw** there *alive* the same girl, *attired with the same dress*, as if time and death **had not passed**. Although there was no **bow** involved, it **seemed** to me there that the relativity of simultaneity could **join** the **simultaneity of relativity** exemplified by the **bow**.

### 6.2 The Simultaneity of Relativity

In Shakespeare's "Hamlet," Prince Hamlet sets aside the idea of marrying Ophelia (under the relativity of simultaneity) because he **suspects** (under the **simultaneity of relativity**) that his uncle **Claudius**, the new king, **might have caused** the death of his brother and Hamlet's father, the former king. Shakespeare's **creative genius used** a flexible **time** to sustain the **tension** that **entertains** spectators. Hamlet's "to be or not to be" in Act III should be **understood** as "to be **and not to be**," for the **undecidability** of **quantum computing** is driving Hamlet's **feigned madness**. He distrusts the decidability that leads to bad mistakes (as killing a hiding Polonius, Ophelia's father). Left to herself, Ophelia suicides.

Both "Hamlet" and "Macbeth" plays fill theaters and feed its workers, although "Macbeth" *lasts half the time* of "Hamlet." Clearly, Shakespeare's "Hamlet" needed more **time** to impress spectators with the vicissitudes of the **Prince of Denmark**. "Hamlet" and "Macbeth" tell us indirectly that, when a finite, asymmetrical speed **allies** with an **infinite**



and **symmetrical speed**, our **interpretation** of reality change **instantly**, as the Athenian general Xenophon realized.

### 6.3 The Black Sea and the March of the Ten Thousand in 401 BCE

We need an **infinite speed** to see both faces of a coin, or to exist on both sides of an abyss. Thus, most people deny the reality of **infinite speed**. In his 375-BCE book “Anabasis” (or “The march of the ten thousand”), Xenophon, a pupil of Socrates, wrote (Xenophon, 375 BCE) that his soldiers could not take a cave on the opposite side of a precipice after the Battle of Cunaxa in 401 BCE. His hoplites had to leave and prey on weaker people. When Xenophon moved later from the rearguard to his vanguard, though, he was **surprised** by his soldiers crying there “thalassa,” “thalassa” (“the sea,” “the sea”) in seeing the Black Sea. That sea would **take** them to Greece. Xenophon showed that **decoherence** (the angle  $2\pi$ ) guards **coherence** ( $\pi$ ), for no one **returns** without first **going**. **Infinite speed** was always with him, after all.

### 6.4 The Affirmation of Infinite Speed

Within natural **infinity**, time can be **accelerated**, **stopped**, and even **reversed**! Lewis Carroll **told** three ten-year-old girls a **story** about a Cheshire **smiling** cat that **left behind his smile** (Figure 18). The girls told him to write down his **story**. He did so; and even published Alice’s **dream** (Carroll, 1865) and the virtual feats of her **imagination** (Carroll, 1871).



Figure 18. The unsettling smile of a Cheshire cat

Had he **read** “Alice in Wonderland,” Einstein-1935 would have backed Carroll’s **logic** and would have **understood**.

### 6.5 The Affirmation of Infinite Speed in Creativity

Einstein disagreed with the **complementarity** invoked by Niels Bohr’s belief in the **probabilistic orbital** of an electron within **Heisenberg Uncertainty Principle** (“We cannot know both the position and speed of a subatomic particle”). Under a strict scientific view, one could resolve **undecidedness** (or **doubt**) with **probability**. Einstein, though, **intuited** that the cosmos went beyond **special relativity** and **probabilities**. His **theistic view** that God does not “play dice” with nature considered that our description of quantum mechanics is **incomplete**. The Bohr-Einstein discussion can be settled by **seeing** that **infinity** exists in a **bow** and the **chords** of a **guitar** as **tension**. The **infinite speed** lodged in our cerebellar microcomplexes animates **tension** in **creative discourses**, **masterpieces**, **Sacred Texts**, and **musical pieces**.

The international success of the recently died († 2023) composer, singer, and **guitar player** Totò Cutugno rests on the **tension** that accompanies his music, the words of his songs, and the chords of the guitar he played. **Cutugno** could also play well a piano or a drum because all musical instruments have been designed to underlie **tension** and **infinity**.



Figure 19. The creative smile of Totò Cutugno

**Tension** animated the dolmens of Stonehenge for our technology-poor ancestors. Although we can see most spiral galaxies and read most Sacred Texts (e.g., Moses's "Genesis," the "Baghavad Gita," and the "Popol Vuh"), most of us cannot read them. Yet **tension** animated the bow and arrow used by the comedian Rowan Atkinson (Mr. Bean).

In one of his movies, Mr. Bean shoots an arrow, blows a balloon in a cluster of balloons tied to a flying baby carriage, and saves a child by forcing the carriage to land near the baby's mother. Mr. **Bean's** infinity helped the baby return home in the same way that Elliot's infinity helped his asymmetrical-symmetrical two-eyed friend, E.T., return home.

In any bow, its opposite ends respond simultaneously to the **tension** created by a right-handed archer, who may pull its chord toward his heart. I use the fact that one in ten thousand persons has a heart in the right part of his body to stress the play of emotion in reading, in writing the words of a song, or in playing pleasingly a guitar.

The father of the composer, singer, and guitarist Totò Cutugno asked his son frequently if he created his songs or copied them from someone else. He was impressed by the creativity that Totò's mind broached so easily. The fact that 98% of people in the world (nonautistics and folly-free liars) can create as did Totò Cutugno rests forgotten today.

Most of us can create (3) by dreaming (2) a new reality (1) through an advantage: *Our genes aid us to lie since the age of 3-4 months* (Figure 14). Pretend play at age two years relies also on our quantum capacity to lie by tensing the bow that joins our cerebral to our cerebellar cortex. Is the right choice of context linked to meditation? The Japanese art of kyudo archery include schools that emphasize Zen meditation. Japanese experts of kyudo, anime-mangaka readers, anime artists, and anime publishers may improve their understanding of the third attention by examining Morihei Ueshiba's efforts to sustain his Aikido in the world.

#### 6.6 The Aikido of Morihei Ueshiba

Morihei Ueshiba realized through illumination in 1925 that in the visible here and now (do) anyone can use power (ki) to re-create harmony (Ai) in the self and others. Thus, he rethought the Samurai combat techniques he had learned. He was able to restore the inner equilibrium (Ai) of others by *causing in them a temporary pain, as nature does with us*.

Japanese mangaka artists might recognize that memory, the duplication of the unique features of an individual, one's declared enemies, and the high social status of a person (e.g., a princess) belong only to a repetitive "do" reality based on a finite speed of light. As with any spontaneous discourse between two interlocutors, the personal stories that fill a mangaka artwork could include the use of infinite speed (Ueshiba's ki, or the simultaneity of relativity) to restore harmony (Ai) in the heart (emotional intelligence) of dumb readers whom infinity could change into shining readers.

Another example of the complementarity between finiteness and infinity is the movie "The War of the Arrows."

#### 6.7 The Complementarity of Nam-yi and Jyushinta in the "War of the Arrows."

In the Korean movie "The War of the Arrows," Nam-vi (the actor Park Hae-il) wants to save his sister Ja-in (the actress Moon Chae-Won) from the slavery inflicted to her (about four centuries ago) by a Manchu prince sustained by the supreme ability of archer-soldiers headed by his uncle, the devilish Jyushinta (the actor Seung-ryong Ryu). Unbeknownst to his sister, Nam-yi develops an ability to deviate his arrows at the last instant, which makes him the best Korean archer of his time.

The diabolical Jyushinta ("the bad guy") helps Nam-vi ("the good guy") keep **tension** alive in the "War of the Arrows." Yet the essential grace of Ja-in ("Cherchez la femme") is linked to our heroism and repentance. Grace is a wonderful gift! But if we do not repent of our offenses, the judgement of God will be negative as if grace had never been there. Likewise, the "Hail Mary" prayer says (Luke 1:28-31, KJV), ". . . Blessed art thou among women. Thou shalt conceive in thy womb . . ." With grace, the angle  $2\pi$  routs  $\pi$  (Figure 10) as Harry Potter ends up routing Lord Voldemort.

#### 6.8 The Difference between the Actions of Harry Potter and the Actions of Lord Voldemort

We may follow the good heart of Harry Potter, Albus Dumbledore, and Prince Hamlet, instead of following the witchcraft of Lord Voldemort, the maliciousness of King Claudius in Elsinore Castle, the temptations of the devil, or the madness of Bellatrix LeStrange. As with the level quantum stone that unites separate opposite vertical menhirs (e.g., autism [+1] opposed to schizophrenia [-1]), the infinite speed enclosed in a bow could be the portal of personal disgrace and even early death. But the alliance of finiteness with fantastic infinity carries the benefit of divine justice.

At this point, we may deepen our understanding of Woldemar Voigt (1887).

#### 6.9 Another Look at Woldemar Voigt, Bernhard Riemann, and the Second Einstein

If we examine in more depth Woldemar Voigt's article and equations of 1887 we may realize that Einstein's finite speed of light applies only to the "X" and measurable axis of complex numbers. Recall that Euler built the complex plane in the Russian University of Saint Petersburg by replacing the vertical axis of the Cartesian Plane with positive and negative imaginary numbers as multiples of  $\sqrt{-1}$  ("i"). *Euler left intact the Cartesian horizontal "X" axis.*

Still, Riemann and Voigt **realized** that *nature transcends human beings*. To me, their spheres represent the mystical recognition that a sphere rotating around the “**Z**” axis would have an equatorial plane in line with Euler’s complex plane. That plane **hails** the **smiles** that **unite** the finite “**X**” axis to the **infinite symmetry** of the “**Y**” **fantastic axis** (Figure 20).

*At a superluminal or infinite velocity of light in Voigt’s transformations,  $y'$  generates **imaginary numbers**.*

Einstein failed to **see** that living beings **rely** on a **horizontal infinity** (**symmetry**, or **2<sup>nd</sup> attention**) **allied** to **vertical finiteness** (my **1<sup>st</sup> attention**). A **vertical asymmetry** keeps lips **straight**; but a horizontal, **simultaneous pull** spreads **smiles**. He lacked **symmetrical dimples** on his cheeks when he **smiled** but had an **asymmetrical dimple** on his chin.

Einstein never **got** the fact that **finiteness crosses infinity** in a human **smile**. Unlike **Feynman**, he **forgot** to **cross** his **relativity** on the “**X**” axis of the complex plane with Euler’s “**Y**” axis. He overvalued the **infinity** of prime numbers.

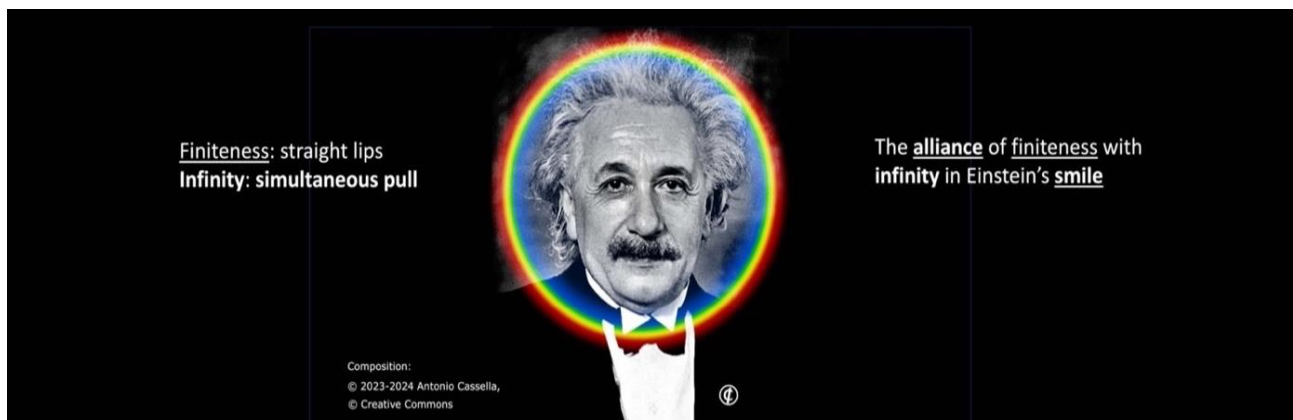


Figure 20. The second Einstein in 1935

A **prime number** is its only **no-remainder** divisor. All “composite integers” greater than 3 (e.g., “2 by 2 = 4,” or “2 by 3 = 6”) can be expressed as a product of prime numbers (2, 3, 5, etc.). Within math, there are infinite prime numbers. But **classical infinity** is useless. **Counting** (**arithmetic** on the “**X**” axis of the complex plane) is very different from **countless imagination** (on the vertical axis of the complex plane), which is latent in **prime numbers**.

In the 200 meters scroll of the “Kangxi Emperor Southern Inspection Tour” (year 1689), the painter Wang Hui rejects Western **visible infinity**. He replaces it with the emotional **infinity** that **surprises** the Chinese emperor. People, animals, trees, houses, bridges, and mountains **keep** the same **dimensions** but also their **surprising uniqueness**. Unlike **localized prime numbers** in the “**X**” axis, **liars** can **surprise** us beyond **probability** by **linking** the finite “**X**” axis **with** the infinite “**Y**” **imaginary** axis. The product of large **prime numbers** will guard our credit cards if bland **AI** does not **surprise** us.

I agree with Klinaku and Syla (2017) that Voigt preceded the first Einstein. I also believe that Einstein’s **relativistic view of spacetime** matches Galileo’s **finiteness**. But the **second Einstein** (Einstein, Podolsky, and Rosen, 1935) **knew** that Bohr’s **probabilistic electron** made an incomplete view. I also posit that **Voigt** beat the **2<sup>nd</sup> Einstein** in **getting** that **view**.

#### 6.10 Infinite speed, Voigt, Jean Piaget, and Quantum Electrodynamics

Voigt included the propositions of **Hendrik Lorentz** in his transformations. Truly, at a small initial speed,  $\gamma$  becomes unity, validating the views of Galileo. If the new speed equals “**c**,” though,  $\gamma$  becomes **undecidable** (or “1/0”) in the threshold of **infinity**. The **2<sup>nd</sup> Einstein** **intuited** that a **fixed speed of light** was **basic** and **needed**, but **insufficient**. In 1935, after talking to Edwin Hubble about the expansion of the universe, the **2<sup>nd</sup> Einstein** **realized** that **cosmic vacuum** was more than the **reality** he had **envisioned** in 1905. **Maybe** he never **smiled** at his mirror image.

Lorentz and the **1<sup>st</sup> Einstein** did not **see** that squaring the speed of light (“**c**<sup>2</sup>”) in applying the gamma factor to the  $y'$  and the  $z'$  of Voigt implies a **superluminal speed**, since “**c**<sup>2</sup>” is more than “**c**.” They also failed to consider that if the speed of the new system is **infinite**, then, gamma becomes an **imaginary number** capable of **reversing** time and causality.

The Swiss Piaget (1983) saw (since the end of stage II in Figure 14) **reversibility** as a key advance in preschoolers; but he connected it to **egoism** instead of **connecting** it to the **simultaneity of relativity** (Cassella, 2000)—a mistake.

In the complex plane, the “**X**” axis **respects finite speed and measurement**, but the “**Y**” **vertical axis** goes by an **infinite speed** through which Carroll’s Alice **would become larger or smaller**, while the time of the mad hatter would **freeze**. Complex numbers, then, result from the **union** of the **principles-laws of finite speed on the “X” axis** (e.g., the **rigidity of bread**) with the **principles-laws of infinite speed on the “Y” axis** (e.g., the **flexibility of wine, or water**).

The Baptist could not baptize his visitors with Herod Antipas’ **wine**. Nevertheless, through **baptismal water** he censured Herod for breaking the **law**. **Betrayed** by her mother **Herodias**, Salomé’s (the American **Rita Hayworth**,

daughter of a gitano dancer) **dancing** could not **save** St. John from **Herodias' revenge**. Asymmetrical **law** was violated with the arrest and death of Sr. John, but his disciples **followed** Jesus and a better **reality** (e.g., the **combination** of **asymmetry** **and** **symmetry** that allowed Jesus to **walk** on the surface of the Sea of Galilee) (Matthew 14:22-36, KJV).

Jesus also used a **combination** of **asymmetry** and **symmetry** to **teach** and thus **save** the **angry** inhabitants of Nazareth, who had **pushed** Him to the top of the hill adjacent to Nazareth (Luke 4:14-36, KJV). They asked for a **miracle**, **defying** His **humility**. In front of Jesus laid a **precipice**. He did not **fly** out of there, however, as He had done when He **walked** on the Sea of Galilee. He did not use His **infinity** to **walk through** the mob; but **changed** their **animosity** toward Him. **Walking through** the mob would have meant **quantum superposition** only. Changing their collective **hatred**, however, would have called for Jesus to **exist** in each person's "heart" (or, psychologically, in their two limbic amygdala) **simultaneously**. That feat would have implied both **quantum superposition** and **quantum entanglement**. A **good** Christian **preacher** would **see Jesus's miracle** and **help** his congregation **read** that episode of Luke (4:14-36, KJV).

**Feynman** (1985) wrote that **measurable phenomena** (in the **perceivable world** that goes by the **finite speed of an advancing light**) **result** from the **action** of **virtual particles** gifted with **infinite speed**. His **operations** with vectors were performed in the circular complex plane envisaged by Leonhard Euler at Russia's St. Petersburg University. Feynman's research evokes the reality of **Voigt's Shining Sphere** and **Riemann Sphere**. I presume that in both cases, a cylinder forces a sphere to rotate along the "**Z**" direction. In Cicero's view, Archimedes' tombstone pictured a sphere inside a cylinder, a **fact** that defeated the **understanding** of ancient Syracusans. Archimedes' tombstone, which continues defeating the modern **inhabitants** of Syracuse, is **understood** only by the spectators who **stand on their feet** upon **hearing Giuseppe Verdi's** music of "**Va pensiero sull'ali dorate** . . ." ("**Go thought on golden wings** . . .") of his 1842 Opera "Nabucco." Supposedly, Verdi **composed instantly** the **music** of "Va pensiero" when that page of Act III of the libretto of "Nabucco" (to which he did not want to add musical scores) fell to the floor from his desk. **Who did it?**

#### 6.11 The Equatorial Complex Plane in the Riemann Sphere

Let us imagine that a complex plane, handled through polar coordinates, cuts a sphere by its equatorial and largest circle. Although half of Voigt's Shining sphere (or Riemann Sphere) would be lying above its equator, its axis of rotation would still be the "**Z**" axis (Figure 10).

Thus, if your accountant tells you at the end of a year that the debt with your bank is low in comparison to your assets priced at market value, you are **rich** and have **all the right to sing** Verdi's "Rigoletto's" air "**la donna émobile**," without understanding its words about the **ambiguity of lying**. But if you **know** that you are **poor** and use the **subjunctive** to sing **with your heart** the air "If **I were** a rich man . . ." of "Fiddler on the Roof," then you are also **lying** and **allying finiteness** on the "**X**" axis of real poverty **with infinite fantasy** on the "**Y**" axis.

To my Italian, Venezuelan, and American mixed nature, "Rigoletto" and "Fiddle on the Roof" hold hands with Disney's movie "Beauty and the Beast" in reaching Voigt's *Shining Sphere* through the "**Z**" axis. In 1996 I saw my autistic son impersonating the **devilish Gastón**, while holding the **bow** that **Gastón uses** to wound mortally the good **Beast**. That **ironic** episode helps me realize now that **symmetric** and **infinite speed** (in any **bow**, in **quantum computing**, and in the **simultaneity of relativity**) may **complement** the **finite speed** of an **arrow**, **classical computing**, and the **relativity of simultaneity** to **help** a person **succeed** in his **mission** on Earth, instead of falling with the **devil** that hides in his brain.

The complex equatorial circle of Voigt's and Riemann's spheres admits the use of natural **infinity** to **invert** a cause with its effects. The inversion of **finite causality** *empowers knowledge of the future*. Does nature **divine** the future to **renew** the present as did **Joseph** in Egypt? In my view, the Greek mathematician **Euclid** in Alexandria of Egypt understood what **renews** reality.

#### 6.12 Euclid's Fifth Postulate, Archimedes, Riemann Sphere, and Martin Luther

In his 5<sup>th</sup> postulate, Euclid wrote in the 3<sup>rd</sup> century BCE that **if** the angles created by two line segments intersected by a third were less than 180 degrees, **then** the two segments would *meet* when prolonged to **infinity**. Euclid's fifth postulate cannot be replaced by believing with the Scottish John Playfair in the 17<sup>th</sup> century that through a given point not lying on a given line only one parallel to that line can be drawn. In his fifth postulate, Euclid's word "**if**" implies a **simultaneous view** of **opposite universes** (e.g., a universe of **matter** **balancing** through **infinite speed** a universe of **anti-matter**).

Denying the 5<sup>th</sup> postulate supports an *elliptic* or a *hyperbolic* geometry. On the **surface** of a sphere (**elliptic geometry**), one can have a triangle where the sum of its angles exceeds 180 degrees. And on a saddle (**hyperbolic geometry**) the angles of a triangle will sum less than 180 degrees. Voigt's and Riemann's choice of an elliptic geometry validates the **hypothetical reasons** in the brain of an **intelligent** driver who stops at a green traffic light.

A driver might **stop** at a **green light** (Cassella, 2018) to **avoid** hitting a drunk opposing driver whose dizzy brain cannot in his situation **respect the law** (stop at a red light) nor **see contextual clues** (the **second attention**). What happens is

that **infinite speed** could allow a **keen** driver to **travel** in her **car** and in the **car** of the drunk driver up to the next **intersection**. There, if she **realized** **virtually** that she would **cross** in **finite reality** the driver in the car out of **control**, she would **return** to her car at a **superluminal speed** to **press the brake** instead of **pressing the accelerator**.

Figure 21 shows the **alliance** of **cerebral finiteness** and **cerebellar infinity** in the brain of the driver who decides to **stop** at a **green light**. Within Reformation, the microcomplexes of Martin Luther **worked** in the same **dreamy** fashion.

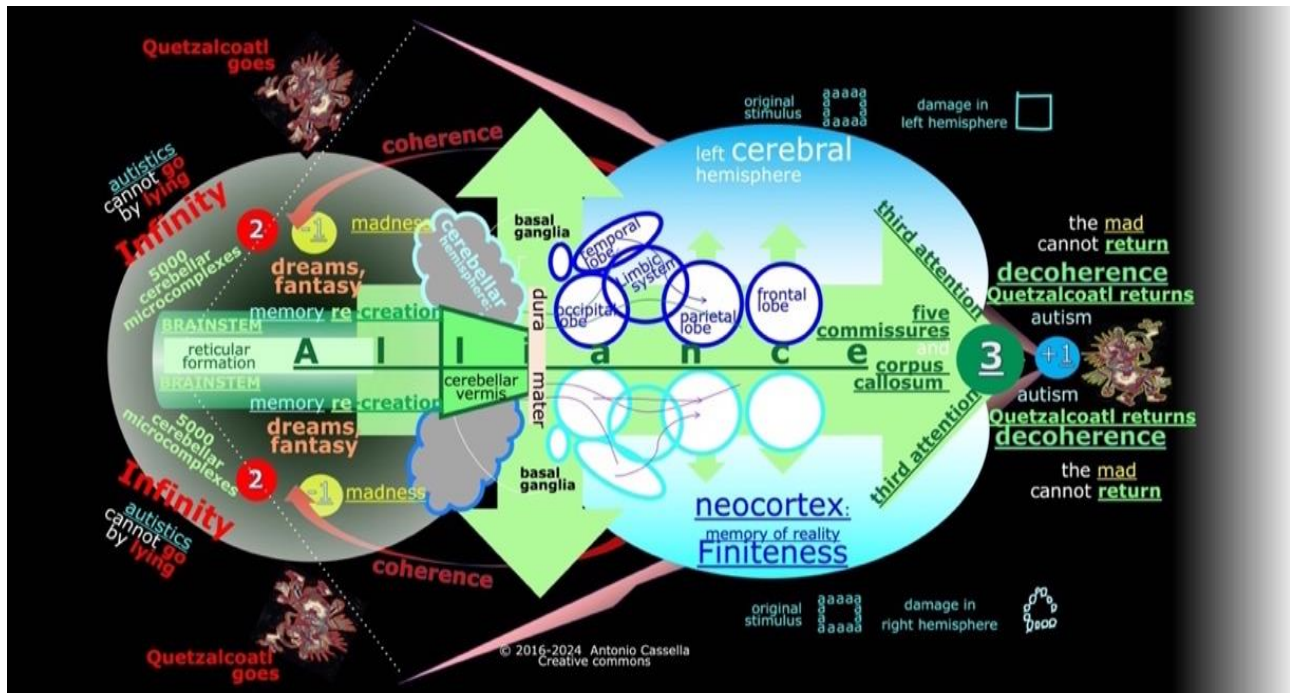


Figure 21. The alliance of infinity and nothingness in the human brain of a driver who stops at a green light.

About 100 years before the condemnation of Galileo, Martin Luther advanced a theological view that valued both the **Omnipresence** of Christ in the universe (the Principle of Ubiquity) and the **Consubstantiation** of the host and Christ in the Eucharist (my **Principle of Coincidence** or **quantum superposition**), the situation of Jesus re-visiting Nazareth.

Yet Father Suárez, a most respected Jesuit **theologian**, remarked that since *two substances cannot share the same space at the same time* (the **Principle of Impenetrability**), the Lutheran concept of **consubstantiation** would seem repulsive to any person gifted with **reason** (Cassella, 2023).

The **alliance** of **finiteness with infinity** escaped the limited **understanding** of Father Suárez's **cerebral cortex** (Figure 21). The "X" axis of complex numbers can only **understand**. I am sure that Father Suárez did possess **lying infinity**. However, his **Aristotelian logic** never **saw** the potential **alliance** of **finiteness and infinity** in mystical terms.

## 7. Concluding Remarks

In this article, I try to explain that **loving** others as **God's loves us** adds the "**tree of life**" to the "**tree of knowledge**."

The work of **Richard Feynman** in **tying** the **infinity of virtual photons** to the **finiteness of advancing real photons** leads me to **viewing** a universe of **antimatter**, one of **matter**, and the **alliance** of **real** with **imaginary** numbers in a being. My hypothetical view includes the validity of Voigt's and Riemann's spheres and the null hypothesis that **autistic classical** and vertical **asymmetrical finiteness** can **ally** with lying and horizontal **symmetrical infinity** in living beings. **Autism** implies that the **alliance** of Einstein's **rigid relativity with flexible quantum physics** in the actual cosmos *can be seized* by eight billion liars today as the few builders of Stonehenge **envisioned** their cosmos 5.000 years ago.

The oblivion of the **vision** of our Stone-Age forefathers is the real cause of the multiplication of human beings on Earth, of the anthropogenic sixth extinction, and of the global warming that could cut abruptly the future of our descendants.

*The **wisdom, courage, creativity, and fighting spirit** of Rus'-Vikings and Slavs should press us to go back to the reduced population and abject poverty of two centuries ago.*

Figure 22 shows that Russia and Ukraine can **forgive** each other and support the **alliance** of **finiteness** (e.g., **national borders**) with **infinity**, which characterized the **seal** of **Yaroslav the Wise**.

When Yaroslav the Wise left Novgorod to reach Kyiv, his **wisdom** moved with him.



Figure 22. The alliance of finiteness and infinity in the invalidated two hryvnia banknote about Yaroslav the Wise

I posit that the seal of Yaroslav the Wise included both the symmetry-infinity wanted by Euler through imaginary numbers and the asymmetrical tryzub that Vladimir the Great respected when he moved first from the Russian Novgorod to the Ukrainian Kyiv.

We need to include again the finiteness used by Vladimir the Great in the seal used by Yaroslav the Wise. As the son of Vladimir with Anna Porphyrogenita (a Byzantium's princess), Yaroslav denoted the 3<sup>rd</sup> Rome: Russia and Ukraine.

In late 1941, Roosevelt's choice to help Stalin defeat Hitler barred the Third Reich from making first atomic weapons.

Now, the 3<sup>rd</sup> Rome could save life on Earth if reciprocal forgiveness were granted by Russia and Ukraine.

As the Lord's prayer says (Matthew 6:9-13, KJV), "Our Father which art in heaven, . . . forgive our debts, as we forgive our debtors . . ." Repentance is necessary and sufficient.

It is "Z" or the 3<sup>rd</sup> attention that matters, not "Z" or the 2<sup>nd</sup> lying attention chosen by former actors. After looking at the limitations of autism, political leaders and all liars should repent of misusing their inherited capacity to lie.

*The USA, Europe, China, India, and the whole world could help Russia, Ukraine, and Turkey in using wisely the Azolla super-plant and other products in the Black Sea. The idea is to avoid a risky overcooling effect in absorbing from the atmosphere the green gases that we have been throwing there in the last two centuries.*

If key citizens of the world understand the importance of allying finiteness and infinity within the complex numbers implied by Riemann and Voigt, we will skip chaos, keep one billion children from facing terror, and return to a smaller population and an intelligent energy use. Stonehenge was built by humans who sought to help their children.

I hypothesize that a psychologically-inclined postmodern science (e.g., in Cassella, 2013) can join religion to save one billion children from facing chaos in desolate neighborhoods abandoned by state control.

I hope that other researchers will deepen my rendering of the problem we face and my suggestion to return to the view that our few and poor ancestors left in Stonehenge about 5,000 years ago.

### Brief Biography of Antonio Cassella

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the first link of the Spanish series is <https://youtu.be/pJrrHoNs044>;

and the first link of the Italian series is <https://youtu.be/M45zQDLa tk>

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