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LIVING IN THE MATRIX:
HOW A SCIENTIFIC CONJECTURE
WAS TURNED INTO A CONSPIRACY THEORY

Abstract

In recent years the *simulation argument*, namely, the idea that our reality is a kind of computer-generated simulation developed for hidden purposes, has acquired some credit and has been appropriated by the conspiracy culture, especially in the works of David Icke, author of paranoid best-sellers and known for his pseudo-theory about Reptilian aliens who secretly rule our world. To understand the reasons for the success of such an implausible pseudo-theory, it is necessary to analyze its genealogy inside popular culture. The methodological proposal underlying this paper is that the analysis of conspiracy theories and pseudo-scientific beliefs can benefit from the contribution of the history of ideas, which traditionally focuses on the reconstruction of the genealogy and the metamorphosis of unit-ideas over time and through different cultural levels. In this way, it is possible to shed light on the background and the peculiar rationality behind these pseudo-theories. The paper highlights New Age appropriation mechanisms of the theories of physicist David Bohm and neuropsychiatrist Karl Pribram (*holographic principle*), in particular through the pseudoscientific works of the McKenna Brothers (*The Invisible Landscape*, 1975) and Michael Talbot (*The Holographic Universe*, 1991) as well as the impact of some sci-fi works based on the simulation argument, especially Philip K. Dick's novels and *The Matrix* movie (1999), in exposing the paranoid and conspiracy implications of this argument. The paper also highlights the role of pseudo-scientific concepts as a characteristic aspect of contemporary *superconspiracies*, which in the age of rationalization and disenchantment seek to embrace a patina of science in order to be better accepted by the public. Wider application of this perspective to other cases of pseudo-scientific beliefs and contemporary conspiracy theories (e.g. flat Earth or chemtrails) could provide useful suggestions on the most effective way of counteracting them.

Keywords: simulation argument; matrix; holographic principle; David Icke

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Introduction

In recent years, the so-called *simulation argument* according to which the universe and the whole reality in which we live would consist of a computer simulation developed for hidden purposes, and based on the principle that simulated entities should not know the true reality, gained some credit. Proposed in a thorough form by Oxford's philosopher Nick Bostrom (2003), the simulation argument has aroused the interest of several theoretical physicists, philosophers of science and Silicon Valley's tech-titans (Kriss, 2016; Paura, 2017). For its features, this argument has fueled paranoid visions typical of conspiracy theories. Best-selling author David Icke has dedicated growing space to this theme in his paranoid books since 2001, alongside his traditional arguments (New World Order, 9/11, UFOs and mental powers) and especially his main pseudo-theory according to which mankind would be controlled from the dawn of time by an alien race in disguise (the "Reptilians"). Since Icke has developed this argument on a paranoid level, by basing it on pseudo-scientific conjectures and drawing wide inspiration from the 1999 movie *The Matrix*, I define here its pseudo-theory "Matrix theory" to distinguish it from Bostrom's simulation argument. The "Matrix theory" argues that reality is a computer simulation based on the physical principle of holograms in order to hide the true level of reality from humans. To understand the reasons for the success of such an implausible conspiracy theory that calls into question the very essence of reality, it is necessary to analyze its genealogy within popular culture. Specifically, the underlying hypothesis of this paper is that the "Matrix theory" is the result of the transformation and distortion of some scientific conjectures and theories emerging since the second half of the 20th century, in particular the so-called "holographic principle". Such distortion would occur in the long process of reception and adaptation of these scientific theories in popular culture, especially through science fiction and New Age culture.

The methodological proposal behind this paper is that studying conspiracy theories can benefit from the contribution of the history of ideas, which traditionally focuses on the reconstruction of genealogy and metamorphosis of *unit-ideas* over time and through different cultural levels. In this way, it is possible to shed light on the background that allows the development of seemingly irrational pseudo-theories, which on the contrary have a peculiar rationality supporting them. In particular, by retracing the development of the "Matrix theory" through time, the paper will highlight the role of pseudo-scientific concepts as a characteristic feature of contemporary *superconspiracies* (Barkun, 2013), which in this age of rationalization and disenchantment seek to embrace a patina of science in order to be better accepted by the public.

The paper is divided into three parts. The first part analyzes the "Matrix Theory" as a conspiracy theory through David Icke's texts, identifying its main features. In the second part I try to reconstruct the process of transformation and distortion of the scientific hypothesis of the holographic principle within the popular culture, in particular the appropriation of physicist David Bohm's and neuropsychiatrist Karl Pribram's theories by Psychedelia and New Age. In the third part I analyze some science fiction works based on the simulation argument, in particular the blockbuster *The Matrix* directed by the Wachowski Brothers, highlighting how through these works the simulation argument assumed paranoid implications.

David Icke and the "Matrix theory"

David Icke is one of the most prominent authors in the field of conspiracy theories: his website is followed by millions of people, his public lectures always draw a crowd and his books have been translated in many countries. As Icke himself recounts several times in his books, he left school when he was 15 to pursue a career in professional football until he was forced to leave it for health problems at 21; he later joined the BBC as a television presenter, until in 1988 he decided to embrace the political cause of the UK Green Party becoming its spokesperson. In 1990 he began to hear inner voices that caused him to be interested in the paranormal and to attend a psychic. The following year he published his first book on those experiences, *The Truth Vibrations*, and embarked on a journey of initiation to Peru, abandoning his career in the media. The media world was upset about Icke's mystical turn; in a talk-show where Icke was invited to talk about his experience, he declared to be the "son of God". In 1995 Icke published a second book, *And The Truth Shall Set You Free*, where he presented conspiracy

theories related to the New World Order mixed with discussions on the hidden powers of the human mind. World success came in 1999 with *The Biggest Secret*, in which Icke introduced for the first time his pseudo-theory on the role of an alien civilization, the Reptilians, in the history of our civilization. According to Icke, world leaders and the heads of the most powerful secret organizations controlling the world are Reptilians disguised as human beings, everyone being part of a bloodline linked, in modern times, to the Rothschilds.

The argument that I define here as the “Matrix theory” is a subsequent elaboration of the elements present in his first books. Following his New Age beliefs on the power of the human mind in creating reality, Icke studied the theories of physicist David Bohm through the reading of a pseudoscience bestseller published in 1991, *The Holographic Universe* by Michael Talbot (see chapter 2). The full development of his pseudo-scientific theory, however, was mainly influenced by *The Matrix* movie, which Icke cites several times in his books and from which he drew the term to designate the “illusory reality” in which we supposedly live (see chapter 3). The first reference to the “Matrix theory” is in the 2001 book *Children of Matrix*. Here, the theory is still in its early stages, probably more the result of an influence engendered by the movie than a well-thought-out attempt to combine elements of its vision with his previously developed pseudo-theories. In *Children of Matrix* Icke argues that all persons live in her own universe produced by their own minds (we might call it a solipsism-like theory), and that what we perceive as reality is but a “holographic projection”. By acting through subliminal messages and other mental control techniques, Reptilians who control the world would stimulate the oldest part of our brain, the so-called *reptilian brain* or *R-complex*, which oversees human’s instinctive and innate needs¹. In his own words:

Through the reptilian brain, the Anunnaki-Illuminati [synonyms he uses to define the Reptilians present on the Earth] manipulate our perception of reality. This frequency range or physical world is controlled and manipulated from outside, from another frequency range or density, which I have called the fourth dimension. As in the movie, *The Matrix*, the “agents” of this force come into this world to delude and manipulate us – like the other-dimensional Men in Black. (Icke, 2001:387)

In *Tales from the Time Loop* (2003), while focusing on geopolitical issues related to the Iraq war in the framework of New World Order theories, Icke resumes work on the “Matrix theory” and develops it further. This book conveys the effects of a mystical experience Icke had in 2003 in the Amazon rainforest, where he had been invited to speak at a spiritual gathering. On that occasion, Icke experimented with the hallucinogenic properties of ayahuasca, an infusion based on Amazonian plants possessing psychedelic properties, including the DMT molecule known for its ability to cause mystical experiences. During a trip Icke heard a voice revealing to him the very nature of reality:

I was told in my altered states that all that exists is one infinite consciousness, which was referred to as “The Infinite”, “Oneness” and the “One”. In our manipulated, illusory reality we had become detached from the One (in our minds, though not in fact) and therefore we viewed everything in terms of division and duality instead of seeing that all is connected, all is the same Infinite Oneness. This illusory sense of disconnection is the mind prison I call the Matrix. (Icke, 2003:191)

The term *time loop* used by Icke in the title of his book refers to the fact that the voice told him “that the Matrix is a vortex, like a whirlpool in a river, with the Time Loop - our five-sense reality - in the densest part of the spiral” (Icke, 2003:192). Therefore, in this book, and often in subsequent texts, he uses the term Time Loop to designate the perceived sensory reality: the Time Loop would have forgotten to be part of the Matrix, namely that it is part of an infinite whole; this results in our fragmented and non-holistic sensory experience. The Time Loop is just a projection of our unconscious mind, “much like a movie projector beaming on a screen”: by modifying our subconscious, a new projection takes the place of the former, thus reflecting “the new sense of what is real” (Icke, 2003:194).

¹ This definition was proposed by American physician and neuroscientist Paul D. McLean in the 1960s, within his theory that divides the brain into three distinct anatomical formations: the R-complex, the limbic system, and the Neocortex.

To preserve the projection (i.e. the illusory reality), the Matrix uses some sentient programs that work within it. These sentient programs are the Reptilians. Here Icke draws inspiration, by his own admission, from *The Matrix* Agent Smith and other characters in the movie that act as Matrix programs to prevent humanity from becoming aware of the simulated reality. Reptilians are not aware of the Matrix, so they do not know that they act on its behalf; so Icke adds a further level to his conspiracy cathedral: if in previous books he argued that at the top of everything was the Reptilian lineage that has been keeping humanity in slavery for millennia, now within the “Matrix theory” Icke argues that the same Reptilians would be projections produced by the Matrix so that humanity does not notice the illusion, accumulating negative energies (especially fear) that constitute the ultimate source of energy supporting the Matrix (just as in *The Matrix* humans are used as “batteries” by the AI machines that run the simulated reality).

How does the Matrix work? According to Icke, it is the sum of vibrational fields (and more precisely *thought fields*) that we decode in three-dimensional holographic images through DNA, a sort of antenna receiving and decoding information coming from the vibration fields. In his next book, *Infinite Love is the Only Truth, Everything Else is Illusion* (the title comes from a sentence said by the “voice” Icke heard in Amazonia in 2003 and cited in the previous text), Icke links this vision to Einstein’s theory of relativity - which expresses the relationship between mass and energy - and quantum mechanics, especially the quantum field theory, in which the quantum nature of reality is regarded as essentially formed by fields. “Everything in what we call Creation is energy resonating at different frequencies”, Icke says; and shortly afterwards he adds: “Quantum physics, which explores reality beyond the ‘physical’ world of the atom, is saying basically the same as the mystics, and people like me, who talk of different dimensions and frequencies of existence interpenetrating our own” (Icke, 2005:21). Therefore, he believes that most of the physical laws are nothing but illusions. Physicists and, in general, all members of the “mainstream” scientific community would be controlled by a higher entity (for Icke it’s the Royal Society, obviously infiltrated by Reptilians) to “discover” laws and constants that actually do not exist, such as the speed of light limit: this is because the Reptilians can move at higher speeds than those of light and through other dimensions that our physical laws would not contemplate. Not only that: since we know today that baryonic matter (the ordinary matter we perceive through electromagnetic radiation) accounts for only about 4% of the universe’s content, the remaining part being what physicists call *dark matter* and *dark energy*, the latter would actually be the “realm” where, according to Icke, “Reptilians and other non-human entities operate unseen by humans” (Icke, 2007). Contemporary theoretical physics is thus distorted to be adapted to the author’s point of view. Icke makes abundant use of scientific terms in the attempt to give his theory an aura of scientific accuracy: it is a practice typical of pseudo-scientific theorists that scholars call *science mimicry* (Blancke, Boudry and Pigliucci, 2016). A typical example is the following sentence:

The Matrix, the “Super Hologram”, is information that’s decoded into the illusory “world” we think we are experiencing, just as a computer reads software and the wireless Internet. The information we are decoding from the Matrix is a ready-to-wear world and belief-system broadcast to the DNA / cellular network as frequencies, and decoded into holographic 3D collective reality. (Icke, 2007:49)

In *Human Race Get Off Your Knees* (2010) and in the ponderous *The Perception Deception* (2013), Icke adds an even more radical element to his “Matrix theory”: using the metaphor of the planetarium, that projects into the dome the image of an apparently endless sky but hiding with an illusion its finiteness given by the planetarium’s walls, Icke argues that the whole universe, including the stars and the planets we see, is in turn an illusion (“the entire solar system and all that we see in the night sky is in my view akin to a computer-generated illusion and only a fake copy of the universe as it really is” [Icke, 2013:159]). The Moon and Saturn would be artificial bodies built by the Reptilians to project the Time Loop, that is, our five-sense reality, within the Matrix. Saturn’s rings, according to Icke, behave like a “broadcasting system” that transmits at a certain frequency, through appropriate vibrations, projecting the reality we perceive². Through transmissions from the Moon and Saturn,

² Although he claims to have come to these conclusions independently through some sort of revelation, Icke mentions two texts from which he clearly draws inspirations: Norman R. Bergrun’s *Ringmakers of Saturn* (1986) and *Who Built the Moon?* by Christopher Knight and Alan Butler (2005), two books that attempt to demonstrate the artificial nature of these two celestial bodies.

Reptilians have supposedly created a kind of “firewall” that prevents the Earth from receiving vibrations from a higher level of reality, and through the perception of which humanity would be set free³:

[Saturn] is an inter-frequency gateway that allows Archontic entities [another name for the Reptilians, see note 4] to move between their reality and ours and it is a means – and there will be others – through which ‘Hack’ information can be projected from the Archontic realm into ours. This information is broadcast through Saturn (hence the rings) on the frequency band that can be received by human DNA which was specifically tuned to this frequency band during the genetic manipulation that I described earlier. Saturn is, in short, a gigantic inter-reality gateway and broadcasting unit and the rings are a sound (waveform information) system. (Icke, 2013:160)

In his books, Icke repeatedly quotes sentences drawn from scientific articles and popular science books, decontextualizing them to support his hypotheses. He often mentions theories of people he defines as researchers or scientists, though they are not; at other times he attributes to personalities from the world of science considerations that do not belong to their thinking at all: for example, he cites two well-known skeptics, science-fiction and science writer Isaac Asimov and astrophysicist Carl Sagan, to defend some elements of his theory, such as the artificial nature of the Moon. Through these tricks, Icke tries to present his theories within a coherent scientific framework, albeit outside of what he and other pseudoscience proponents define as “mainstream science”.

Metamorphosis of a scientific theory: the holographic principle

Among the scientists Icke quotes in support of his “Matrix theory”, pride of place is given to David Bohm and Karl Pribram, two pioneers of a scientific conjecture now known as the *holographic principle* (see Bouso, 2002):

Among those at the forefront of this research are people like David Bohm, the world-renowned quantum physicist at the University of London, who worked with Einstein, and Karl Pribram, a neurophysiologist at Stanford University. Many others have picked up their themes and published their own findings. Bohm and Pribram came to basically the same conclusions even though they arrived from different directions and did not correspond until their original ideas were formed. This research states that our ‘physical’ reality is made up of holograms that give the illusion of three-dimensional objects when they are, in fact, nothing more than frequency patterns. The voice in the ayahuasca session said that our minds create these holographic illusions in a slightly different way to the holograms made by human technology, but the principle was the same. (Icke, 2003:206)

Theoretical physicist David Bohm was one of the most prominent quantum theorists: at Princeton he had many conversations with Albert Einstein on the interpretation of quantum mechanics, but later he was forced to develop many of his theses outside the United States due to McCarthyism: loose affiliations with the Communist Party prevented him from developing a career in the US, forcing him to emigrate first to São Paulo in Brazil and then to London. Bohm’s studies mainly concerned the so-called *EPR paradox* (from the names of physicists Einstein, Podolsky and Rosen who proposed it as a thought experiment in 1935), best known today as *entanglement*. In the Bohmian version of the EPR paradox, two quantum particles produced by the splitting of another particle retain inherited complementary properties from the “mother” particle; for instance, a negative spin in particle A will correspond with positive value for particle B, because the angular momentum (measured by the spin) is kept. However, since Heisenberg’s uncertainty principle says that the properties of a quantum system are indeterminate up to the moment of actual measurement, an obvious paradox emerges: if an

³ To the reader, Gnosticism’s influence on the “Matrix theory” may be evident. And indeed, in this book Icke specifically mentions the Gnostic texts found in Nag Hammadi, which in his view would contain evidence of the existence of the Reptilians (the “Archons”) and their plans to perpetually enslave humanity. In Gnostic thought, Archons serve the “Demiurge”, the false god of the illusory reality that hides the true reality as a veil; still, they are emanations of the Demiurge, just as the Reptilians in the “Matrix theory” or Agent Smith in *The Matrix*. On the influence of Gnosticism on contemporary mass culture, the indispensable read is Erik Davis, *Techgnosis* (1998).

experimenter measures the particle A spin in a laboratory, particle B assumes the opposite spin (in the technical jargon, its wave function expressing the probability “collapses” to a certain value) instantly regardless of space-time distance from particle A, thus violating the speed limit set by the theory of relativity for the transmission of information. Like Einstein, with whom he had long discussed the paradox, Bohm was initially convinced of the existence of “hidden variables” that could explain the entanglement of quantum particles, which implied the incompleteness of quantum mechanics. However, in the 1960s, John Stewart Bell demonstrated with his famous theorem that the theory of hidden variables is incorrect, and that the principle of locality (by which distant objects cannot have mutual influence instantly) should not be considered valid in quantum mechanics. Quantum mechanics is therefore considered a non-local theory.

During the 1970s Bohm had to revisit his theories, attempting to develop a new explanation for the phenomenon of non-locality. In this effort, he was influenced by discussions with some New Age thinkers, in particular the members of the Fundamental Fysics Group, established at the University of Berkeley in 1975 by a group of physics students belonging to countercultural movements (see Kaiser, 2012). The research program of one of its members, Saul-Paul Sirag, drawn in 1976, shows the heterodox way they undertook: starting from the study of the EPR paradox and Bell’s theorem, thus accepting the non-locality of quantum mechanics, they intended to study psychokinesis, the observer’s role in creating reality, time travel, telepathy and extraterrestrial communications (in light of the superluminal information transfer that the phenomenon of entanglement seemed to allow). One of Berkeley group’s founders, Fred Alan Wolf, a professor of physics at San Diego State College, paid a visit to Bohm at Birkbeck College, University of London in 1971 while on a sabbatical year during which he first went to India and Nepal, experimenting with supposed extracorporeal experiences in a Buddhist temple. Together with Bohm, Wolf conducted experiments on the well-known psychic Uri Geller to test his alleged psychokinetic abilities. The cultural context in which Bohm developed his theory of implicate order was therefore characterized by close relationships with New Age thought, which quickly adapted his theories (e.g. in Capra, 1975). Bohm presented his new hypothesis within a series of articles published in the 1970s in *Foundations of Physics* journal, collected and extended in the book *Wholeness and the Implicate Order* (1980). The theory of implicate order explains the non-locality of quantum phenomena by distinguishing between two different levels of reality, the *foreground* (or *explicate order*) and the *background* (or *implicate order*): the former represents the sensory reality we perceive, while the latter determines physical phenomena in their essence. What in the foreground appears as split and fragmented, in the background exists as a space-temporal unit, of which the particles and other phenomena we observe are an expression. It is evident, therefore, how the theory of implicate order resolves the EPR paradox: what in the foreground appears as an instantaneous connection between two particles is nothing but the manifestation of an existing unity at the background level, where space-time distances do not exist.

Bohm compared the interaction between these two levels of reality to the properties of holograms. The principles of holography were discovered by Dennis Gabor in 1947, but only the development of laser technology in the 1960s allowed the first practical applications. Holograms were therefore a novelty in those years. Two peculiar features of holography affected Bohm’s interest: the first is the ability to reproduce a three-dimensional image through the interference of two laser beams on a plate, which can be considered two-dimensional, so that the information about the three-dimensional object reproduced is actually encoded on a surface area of lower dimensions (which implies the existence of a “hidden dimension” of reality); the second is that each part of the holographic plate preserves the information from which it is possible to reproduce the whole hologram, so that unlike a photograph (where each pixel represents a point in the photographed image) it is always possible to reproduce the whole hologram even if the holographic plate is torn apart (hence the name, which is derived from ὅλος, a term that in ancient Greek stands for “everything, the whole”). Bohm argued that this comparison was

particularly suitable for the understanding of such unbroken wholeness in flowing movement, for in the implicate order the totality of existence is enfolded within each region of space (and time). So, whatever part, element, or aspect we may abstract in thought, this still enfolds the whole and is therefore intrinsically related to the totality from which it has been abstracted. Thus, wholeness permeates all that is being discussed, from the very outset. (Bohm, 2002:218)

The odd properties of holograms also aroused the interest of the neurosurgeon and psychiatrist Karl Pribram. He had already gained great fame for his pioneering studies on the functions of the different areas of the human brain. In his studies of memory and consciousness, however, Pribram began to believe that the hypothesis that memories and different functions of the mind were stored in neurons was wrong, and that the mind's activities in humans are rather shared by the brain as a whole. In his book *Languages of the Brain* (1971), Pribram therefore proposed the so-called *holonomic brain theory*, by which "the cognitive sensory processes of memory, sight, hearing, and consciousness in general, may all operate holographically, in a transformational process of information-coded-energies flowing back and forth between space-time and the frequency domain via a Fourier transform mechanism" (Joye, 2016:121). At the heart of Pribram's conjecture was the information theory developed within cybernetics: the brain basically decodes information from the outside world and translates it through consciousness (mind) into the sensory reality we perceive. The holographic behavior of the brain would also explain why it possesses such extended information storage capacity despite its small size: similar to the way in which on a holographic plate it is possible to record a huge amount of information overlapping the various interference figures produced by the laser beams (to reproduce the correct information it is sufficient that the laser hits the plate at the right angle of incidence on which the interference pattern was formed), the brain can store enormous amounts of information and then recall the one needed at the right time.

Pribram's theory strongly affected two prominent New Age representatives, the McKenna brothers (Terence and Denis), who mentioned it in their best-seller, *The Invisible Landscape. Mind, Hallucinogens and the I Ching* (1975), a book that had much influence in psychedelic culture. In this book, in addition to describing the hallucinogenic properties of some South American plants and mushrooms and elaborating a fanciful pseudo-mathematical theory that linked the ancient Chinese divination text *I Ching* to Maya prophecy on 2012, McKenna brothers used Pribram's theory to argue that DNA would also show a similar hologram-like behavior, "in that the nucleotide sequence of the molecule is identical in every cell of a given organism", and supposing that "holographic principles might also be applied to the structure of reality itself by virtue of the quantum nature of matter" (McKenna, 1993:55). They then concluded:

We can imagine all of the universe or any part of it and thus can say that the mind "contains" all of the physical world, that is, that the mind is a hologram of external reality. This concept has been anticipated by the alchemists in their notion of man as microcosm, and also in the symbol of the alchemist monad (...), a synonym for the *Lapis Philosophorum*, that part in which the whole may be found. Reference might also be made to the central axiom of Hermeticism, the Hellenistic philosophical system that is the forerunner of alchemy: "What is here is everywhere; what is not here is nowhere" (...). This is a formula for a holographic matrix. (McKenna, 1993:50-51)

Pribram met David Bohm at a conference in Cordoba, Spain, in 1979. At that time, Bohm had already developed his theory of implicate order, which deeply affected Pribram: he saw the possibility of a link with his holonomic brain theory, which still lacked a concrete explanation of how the brain could produce a three-dimensional image of the outside world within the mind. Thus, the two began a correspondence which continued until Bohm's death in 1992. The year before, Pribram published *Brain and Perception* (1991), in which he extended his theory taking into account Bohm's proposal. That same year, Bohm's and Pribram's holographic principle gained much greater resonance in the world of parapsychology, New Age and pseudoscience through Michael Talbot's book *The Holographic Universe*. Talbot "grew up in a psychic family" and "from an early age [he] experienced firsthand many of the phenomena" he discussed in his book (Talbot, 1991:7). In 1980, he published a first pseudoscience book, *Mysticism and the New Physics*, focused on quantum physics, achieving some success. *The Holographic Universe* was his most successful book, also because a year later, in 1992, Talbot died prematurely at 38. Since Bohm's and Pribram's theses are quoted by Icke almost exclusively through Talbot's book, it is quite sure that Icke found out the holographic principle through the latter rather than through the original texts. Talbot used the holographic principle to support the scientific reality of ESP phenomena, including telepathy, psychokinesis, clairvoyance, the ability to

change reality or communicate with the dead. In Talbot's book, the holographic principle for the first time explicitly became a synonym for "illusory reality". On the first page he wrote:

[T]here is evidence to suggest that our world and everything in it—from snowflakes to maple trees to falling stars and spinning electrons—are also only ghostly images, projections from a level of reality so beyond our own it is literally beyond both space and time. The main architects of this astonishing idea are two of the world's most eminent thinkers: University of London physicist David Bohm, a protege of Einstein's and one of the world's most respected quantum physicists; and Karl Pribram, a neurophysiologist at Stanford University and author of the classic neuropsychological textbook *Languages of the Brain*. (Talbot, 1991:1)

After discussing Pribram's theory in the first chapter and Bohm's in the second chapter, Talbot concluded the first part of his book presenting his synthesis of these two theories, used in the subsequent part of the book as a scientific background to explain the nature of paranormal phenomena:

Considered together, Bohm and Pribram's theories provide a profound new way of looking at the world: *Our brains mathematically construct objective reality by interpreting frequencies that are ultimately projections from another dimension, a deeper order of existence that is beyond both space and time: The brain is a hologram enfolded in a holographic universe.* (Talbot, 1991:54, original italics)

In his books, Icke defines Talbot's book as outstanding (Icke, 2005:37) and refers to it often in support of his thesis. Therefore, the holographic principle - born as a scientific conjecture and recently rediscovered by theoretical physics to explain some properties of the black holes (Susskind, 1995), then applied in cosmology in the framework of string theory (Maldacena, 1999) - has undergone a metamorphosis in the field of fringe culture over the years, to become the pseudo-scientific background of conspiracy theories such as that of David Icke.

Genesis of a conspiracy theory: the simulation argument

The hypothesis that reality is an illusion, namely, the projection of a 'hidden' dimension, does not automatically imply that this illusion is produced by an evil intelligence. Nature may have a behavior similar to that of holograms, without the metaphor being necessarily pushed up to the hypothesis that the universe is an artificial hologram made by a superior intelligence. Icke's "Matrix theory", on the other hand, supports this, transforming the pseudo-scientific version of the holographic principle (already in vogue, as we have seen, since the 1970s) in a theory of conspiracy. To understand the genesis of this theory, one needs to hack back to the science-fiction imaginary of the second half of the 20th century and to some characteristic patterns of conspiracy theories.

One of the most prominent authors in paranoid fiction is Philip K. Dick. The famous author of novels like *Do the Android Dream Electric Sheep?* and *The Man in the High Castle* had a tremendous impact on contemporary popular culture, as evidenced by the number of movie and TV adaptations of his stories, and the fact that Dick is considered the forerunner of the literary cyberpunk trend or the *Matrix* trilogy itself (see Horsley, 2015; Ventura, 2015). Most of Dick's works deal with themes at the edge of paranoia: in *Time Out of Joint*, the main character discovers that he lives in a fake city, a perfect replica of his hometown in the 1950s, where he still believes he lives, despite of the fact that in the outside world the year is 1998; *Ubik*'s protagonist is convinced that his boss is in a coma after a terrorist attack, but gradually he finds out that he is in a coma himself and that the world he lives in is a dream that is breaking down; in *The Man in the High Castle*, the setting is a parallel universe where the Axis powers have won the Second World War, but soon the reader is compelled to question everything, including the timeline in which he lives. Dick's paranoia culminates in March 1974 when a series of events leads him to question the very nature of reality and his life begins to resemble the plot of one of his novels. Dick began writing an enormous number of notes, which will compose the *Exegesis*, an attempt to give meaning to his experiences. Among the various theories elaborated in the *Exegesis*, the most accomplished of them argues that time stopped in 70 AD, at the apex of the Roman Empire, and that the Empire still exists, but has created a simulated reality in which to imprison the humankind to control it better. This simulated reality, called by Dick *the Black Iron Prison*, is a self-perpetuating, collective hallucination that acts as a feedback loop, so that "the very occlusion itself prevents us from assessing,

overcoming or ever being aware of the occlusion” (Dick, Jackson, 2011:19:5). Its behavior thus appears to be quite similar to the image of Icke’s Matrix, which is in fact a mental projection from which we would not be able to ‘escape’ because of our lack of awareness. Dick learned of McKennas’ theories through Robert Anton Wilson’s book *Cosmic Trigger* (1977), a mix of pseudoscience and conspiracy theories that had a great influence on New Age culture, and that Dick mentioned in the notes that make up the *Exegesis*, concluding that the universe is actually a hologram. But the idea has been weighing on his mind since 1975, as a letter to a friend, Claudia Bush, in February of that year, shows:

Dear Claudia,

If I were to say to you: “The Universe we perceive is a hologram”, you might think I had said something original, until you realized that I had only up-dated Plato’s metaphor of the images flashed on the walls of our cave, images we take to be real. The universe as hologram is more arresting as an insight, though, because the hologram is strikingly like the reality which it refers to – being formed in ersatz cubic volume, for one thing – that we could take this to be more than a mere poetic statement. (Dick, Jackson, 2011:4:172)

Although Dick’s *Exegesis* was only published in 2011 after a long work of selection and editing (but several pieces had been published since the 1990s), Dick’s theories on the Black Iron Prison and the universe as a hologram became known to his readers through *Valis*, one of his latest novels, published in 1981, which almost literally replicates many parts of the *Exegesis*, held together by a faint narrative thread. In the appendix to the novel, titled *Tractatus: Cryptica scriptura*, Dick added a series of thoughts he selected from the notes of his *Exegesis*. We find here his “two source cosmogony,” according to which there would be two *hyperuniverses* and these “projected a hologram-like interface, which is the pluriform universe we creatures inhabit” (Dick, 2011:267). However, hyperuniverse II suffered from a sort of decaying condition, so it “introduced malfactors that damaged our hologrammatic universe” (Dick, 2011:267). He is also of the idea that “the universe is information and we are stationary in it, not three-dimensional and not in space or time. The information fed to us we hypostatize into the phenomenal world” (Dick, 2011:258).

In a note dated October 1978, Dick assumes that “our unreal world is like a sort of bubble within an actual world, a condition of reduction or entrapment – could we be like the personoids which Lem writes about, within an artificial system?” (Dick, Jackson, 2011:21:14). This reveals that Dick knew the views expressed by his Polish colleague Stanislaw Lem in the *Summa Technologiae*, published for the first time in 1964 in Polish but translated into English only recently, long after Dick’s death⁴. In the *Summa Technologiae*, Lem imagines a future science devoted to the programming of simulated personalities, the *personoids*, who live in the simulation without having conscience of it, assuming the world they live in as real. In the same year Lem published *Summa Technologiae*, Daniel F. Galouye’s novel *Simulacron-3* came out in the US: it tells the story of Douglas Hall, who is working on developing a simulation program called Simulacron-3, which replicates completely a city with all its inhabitants. However, a series of mysterious disappearances and weird occurrences determine him to begin an investigation that will reveal the fictitious nature of the reality in which he lives. Actually, Hall’s world is also a simulation that top-level designers want to destroy to prevent the possibility that, by developing Simulacron-3, simulated humans could discover the fictitious nature of their world. In Galouye’s novel, the paranoid component is pushed to the extreme consequences, imagining the existence of evil designers who are keen to kill simulated personalities for pure sadism and exploit them for their own purposes (specifically, market research). Although Galouye was not a famous writer such as Dick, his novel had a huge impact through two adaptations, a first for television (*World on a Wire* by Rainer Werner Fassbinder, 1973) and a second one for the cinema (*The Thirteenth Floor* by Joseph Rusnak, 1999).

The Thirteenth Floor came out in theaters the same year as *The Matrix*. The two movies share the same premise: our world is a computer-generated simulation, in the first case run by human beings identical to us (of which we would be nothing but copies), in the second case by powerful artificial intelligences that enslave humanity to exploit its energy. However, in *The Matrix*, the paranoid and

⁴ This argument is also discussed by Lem in his 1971 short story *Non serviam* (in Lem, 1979): Dick may have learned about the personoids by reading this story.

conspiracy components are more thorough, and this is why the Wachowski Brothers' movie had a greater impact in popular imagination, influencing conspiracy theories like Icke's. In fact, *The Matrix* fully combines a series of features of the subcultural milieu that emerged in the 1990s, characterized by the success of the paranoid discourse around the so-called New World Order (e.g., in the version of popular American televangelist Pat Robertson, 1991) and by the rapid spread of the Internet, which favored the growth of conspiracy theories in quantity and complexity as well as their diffusion all over the world, fueling also peculiar connections: for instance, it is at that time that a link between ufology and theory of New World Order was proposed (Barkun, 2013), a connection which David Icke's theories perfectly embody. As Michael Barkun writes about this kind of *superconspiracies*, joining "event and systemic conspiracies": "At the summit of the conspirational hierarchy is a distant but all-powerful evil force manipulating lesser conspirational actors" (Barkun, 2013:6).

The Matrix stages exactly this mechanism: the audience is initially convinced that the main character, Thomas Anderson / Neo, is simply a hacker kept under watch by secret agents, who in their features reproduce the infamous 'men in black' of numerous conspiracy stories⁵. Therefore, *The Matrix* seems at first glance to stage a story of hackers trying to steal secrets from New World Order's agents, until the audience finds out that the plot is much wider, to the point that at the top of the hierarchy there are not even human beings but the Machines, malicious artificial intelligences who have reduced humanity to slavery and who run a simulated reality, the 'Matrix', set in 1999 and perfectly replicating those years' way of life, in order not to allow humans to discover their fate. *The Matrix* doesn't lack also in millennial aspects: the fact that the city where the last humans live in exile outside the Matrix is called Zion, and that Neo is considered The One, who thanks to a resurrection becomes able to defeat his enemies and spread the truth throughout the Matrix, suggests a parallel between the Machine / Human clash and that between the forces of the Good and the Evil told in the *Book of Revelation*, the battle before the Universal Judgment (see Horsley, 2015). Moreover, as early as the 1980s a growing mistrust by the American conservative right and the fundamentalist millennialism against computers emerged, hypothesizing a connection between the spread of computers and prophecies about Antichrist's coming (Boyer, 1992:293-339). In recent times, fringe Christian apocalypse theorists share the belief that artificial intelligence may be "a possible manifestation of the Antichrist" (Torres, 2017).

Therefore, *The Matrix* represents not just the most popular media version of the simulation argument, but also the link between the pseudo-scientific background behind this argument and the conspiracy culture. The movie doesn't lack in pseudo-scientific aspects, such as the "aura" surrounding human beings (only Neo can see it) or the ability to bend the laws of physics in their favor; the movie also stages a very naive view of the relationship between reality and information, based on the conviction that it is possible to perfectly reproduce the identity of a person of flesh and bone in a sort of virtual avatar, a belief that would result from a misconception of the information theory (see Manzotti, 2012). Anyway, these are the same ideas David Icke resumed for the elaboration of his "Matrix theory". As he writes in *Tales from the Time Loop*:

In the first of the *Matrix* movies, the character called Morpheus holds up a battery and says: "The Matrix is a computer-generated dream world built to keep us under control in order to change the human being into this." That is symbolically correct. (Icke, 2003:193)

A little bit later in the book, he explains why:

The ultimate manipulator of the Matrix and its five-sense Time Loop, the voice said, was the very fabric of the Matrix itself and its power source was the consciousness trapped within its vibrational walls. The Matrix was a self-aware entity that was knowingly manipulating to ensure its own survival by generating the events necessary to produce the fear that empowered it. Humans were indeed 'batteries' or power stations for the Matrix and we were providing the power to maintain our own prison. (Icke, 2003:204)

⁵ The men in black usually appear in cases of encounters with aliens to hide all evidence; they act as agents of secret forces that do not respond to the American government, but to their hidden heads; the men in black often appear in the *X-Files* series (see Barker, 1997).

Incidentally, paranoid implications have been proposed even in the most thorough version of the simulation argument, explained by philosopher Nick Bostrom of the Oxford University in his paper *Are you living in a computer simulation?* in the “Philosophical Quarterly” journal in 2003. Actually, Bostrom includes the simulation argument among the possible existential risks humanity might face in the future. If it was proven that the reality in which we live is a simulation produced by civilizations equipped with advanced technologies, the “simulators” might decide to turn off the program because the simulation is based on the assumption that the simulated entities assume the reality in which they live is true.

Conclusion

The idea that reality can be an illusion is not new. Most known precedents include (within the Western culture) Plato’s famous cave allegory, Gnosticism, Descartes’ evil demon, Putnam’s brain-in-a-vat scenario. The difference is that the modern simulation argument is based on scientific considerations, as typical of the age of rationalization and disenchantment, where even the most imaginative and irrational hypotheses try to pass off as a scientific theory to be taken into due consideration. From the philosophy of science’s point of view, these conjectures - the holographic principle and the simulation argument - pose a serious challenge to Popper’s demarcation criterion: since they are hardly testable or falsifiable, they can easily be considered pseudoscience, even though they are proposed by valid scientists and theorists. It does not take much to become the background of real pseudo-scientific theories. To claim that reality is an illusion, however, does not necessarily imply to hypothesize a malicious agent responsible for the illusion. Bohm’s holographic universe proposal, resumed in recent years by eminent theoretical physicists, argues that holographic properties are part of the mechanism of nature: the Universe just works in this way. It is typical of paranoid mentality, on the contrary, to assume the existence of an agency even where there is no need to suppose it. Indeed, this irrational mechanism would be part of our natural way of thinking, a result of our evolution, which for reasons of evolutionary advantage would be inclined to suppose the presence of an agent with evil purposes behind every action (it is the typical thought of prey-predatory binomial). As an unavoidable consequence, one supposes the existence of an agency also behind casual and natural phenomena: “The suggestion that the world is the result of a creative act by a hidden supernatural agent is something that makes intuitive sense” (Blancke and De Smedt, 2013:371). When paranoid mentality links with pseudoscience, this supernatural agent can assume the semblance of an extraterrestrial intelligence, as in the ancient astronauts’ theory, Scientology or Icke’s Reptilians (see Talmont-Kaminski, 2013, Ciardi, 2017).

With the “Matrix theory”, a breakthrough in conspiracy occur: science-fiction, New Age, and fringe science get together to develop a superconspiracy theory that puts all the others (from Kennedy’s assassination to 9/11, from the New World Order to chemtrails) within an all-inclusive explanatory framework, based on the “Trust No One” assertion that was the *X-Files*’ slogan in the 1990s. In this case, readers are invited to trust not even the reality they perceive through their senses. When we are faced with such implausible pseudo-theories, the natural reaction is to dismiss them and to doubt the reasonableness of its proponents and followers. However, this type of attitude is often counterproductive and tends to oversimplify a complex phenomenon such the spread of conspiracy theories. In this paper, I used the methodology of the history of ideas to understand the genealogy of such a hypothesis, trying to outline its background and the metamorphoses this background has undergone over the years. This outline highlights some aspects typical of other pseudo-scientific conspiracy theories, in particular the misrepresentation of scientific ideas and concepts in the reception phase inside the popular culture, as well as the link between contemporary pseudo-scientific theories and the New Age subculture, and the connection between pseudo-scientific theories and conspiracy theories, especially those related to the New World Order. The history of ideas’ perspective in the study of conspiracy theories can offer interesting sparks as it seeks to identify a ‘rationality’ behind the development of seemingly irrational conceptions shared by large and heterogeneous groups. Wider application of this perspective to other cases of contemporary radical conspiracy theories (e.g. flat Earth or chemtrails) could also offer suggestions on the most effective way of counteracting them.

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