Simulation Theory

Mindscreen Implantation and Avoiding the Contradiction of Physical Reality

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2 - Simulation Theory, Jeff Grupp

The physical universe is associated with our ordinary state of consciousness (OSC), and does not represent ultimate reality.

-John Curtis Gowan¹

Colossians 1:16-17 (NRSV)

16 for in him all things in heaven and on earth were created, things visible and invisible, whether thrones or dominions or rulers or powers—all things have been created through him and for him. 17 He himself is before all things, and in him all things hold together.

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¹ 1975, 10. Gowan was a professor at California State Northridge.

Simulated Reality

All of our lives are lived within our consciousness, our experience. We never see reality outside of our conscious experience. This leads to a valid question, that philosophers have been extremely concerned with for hundreds of years:

How do we know that our experience represents anything outside of our consciousness, since we have no evidence that it does, and how do we know that all our conscious contents, or the vast majority of them, are *not only* inside consciousness, with no connection to an externality?

In this article I will show the stark, and hitherto undiscussed, evidence that nearly all our conscious experience, such as our experience of the world, does not represent anything real outside of our minds. I will not argue that the aspects of reality that are only in our consciousness are merely a dream, but I will show that there is specific evidence that the physical reality we experience in our minds is more akin to a computer program, or computer simulation, and furthermore that it can be shown that minds interact with each other inside this computer simulation. The basics of this idea were popularized in the 1999 film, *The Matrix*. The computer simulation thesis I will argue for here has, however, little in common with the simulation theory of *The Matrix*, and would be a far more advanced simulation theory than seen in *The Matrix*. But the overall plan of this paper is not so much to discuss *how* computer simulated mental reality works, but rather, to firmly verify that our minds (or mindscreens, as I will call them) *are* computer simulations.

I presented the initial aspects of this research at a talk at the winter colloquium lecture at the University of Michigan – Dearborn in April 2013, where I was teaching at the time. But in that talk I only discussed the very initial aspects of this research, and the point of this paper is to present the more of this work.

4 - Simulation Theory, Jeff Grupp

When a person sees a tree, the person nearly never wonders if their experience of the tree in their mind is real or not, if it actually represents reality or not—if the tree is just a picture in their mind and there is no tree out in reality, or if the picture in their mind of the tree is really about a tree outside of their consciousness, and which looks just like the tree-picture in their mind. Simulation theory is the thesis that the human experience of their reality and of physical reality is an implanted and programmed cinematic-like picture-screen (*mindscreen*) that is only in the mind, and that our experiences we have with other people are shared simulation experiences, and not shared physical world experiences.

Simulation theory has become a somewhat hot issue in science and mass media nowadays: it is regularly discussed in mainstream news, a few famous physicists have written compelling books about it, it is showcased in popular films (*The Matrix*, *Videodrome*, *Existenz*, etc.), and some philosophers (Chalmers, Bostrom, etc.) are devoting greater attention to the topic than previously. However, the straightforward evidence for simulation theory has, to my knowledge, not yet been discovered, and a major point of my research is to ascertain this evidence, as will be presented below.

Most of simulated reality research and simulation theory research follows from Nick Bostrom's interesting article that seemed to get the activity going regarding this theory years ago. Bostrom's thesis is, roughly, based on the idea that if our universe, our reality, can contain intelligent life, given that the universe is believed to be so incredibly old, then it is very likely that there has been enough time for other beings to have developed much further than we humans have, wherein we have reason to believe they would create simulations of realities, of which we humans are, more likely than not, one such simulated reality. Below I will have no commentary on that interesting and worthwhile project. The point of this article is entirely different, and is merely to verify that we are, now, creatures that are simulants of a creator-

simulator. The evidence for this is more straightforward and easy-to-come by than I believe most professional philosophers may have believed, and the information that follows is not risky and I do not believe will be very controversial. Rather, the evidence for simulation theory is quite plausible, and only uses the most basic, safe, practical, and believable concepts of philospohy, such as the idea that you have a mind that has picture-images, and that the images are of three-dimensional colorful solids, for example, and the very simplest of empirical measurements, such as the most basic and measurable *shape* of the brain-matter inside a person's head. Such bland and reliable information is the consistent level of where information will reside in this study.

Simulation theory has a few varieties, such as the brain-in-the-vat thought experiment, digital reality theory, platonic dualism, mereological nihilism, Buddhist atomism, among others. Though my research in this article stems from these, my research of simulation theory expands into new descriptions and understandings of simulation theory via the novel evidence for, and the novel descriptions of, our simulated reality.

It is best not to too-closely compare our present-day Iphones and computers to what our mindscreens are. Our Iphones and computers are, it is probably safe to say, incredibly primitive. Our mindscreens, our consciousnesses, that we live through moment-to-moment, and which are all we've ever known, are an astonishingly advanced technology, to the point that professional academics cannot define what these consciousnesses, these mindscreens, are in any clear way, as is regularly discussed in professional philosophy. Our mindscreens have free will, which is a feature so perplexing that some philosophers call it a contradiction² that emerges ex

² Often freedom is merely discussed as being impossible since it must transcend logic, as implied in Van Inwagen, Peter, "The Powers of Rational Beings: Freedom of the Will," in Pojman, Louis P., *Philosophy: The Quest for Truth* 8th ed., 2012, New York: Oxford University Press, 430-431 (esp. 431).

nihilo, and it is probably quite safe to state that no philosopher has been able to come close to defining free will. And our mindscreens, additionally, contain emotion, qualia (or something similar to qualia), self-correction capacities, desire, fear, subjectivity, the capacity to feel inner (subjective) vs. outer (objective, empirical) awareness, God experience, and self-awareness—all items that professional academics are just struggling (at best) to define in the present-day, rather than create these in a computer mind.

Terms

Desimulation: Varying levels of ecstasy when a simulant (mindscreen) ceases to function as a mere simulating machine, where the mindscreen instead directly perceives that mindscreen is merely a cinematic screen, and perceives, to varying levels, the creator-simulator.

Creator-simulator, or creator-programmer: A spirit, mind, being, for lack of better words, of pure joy, ecstasy, love, goodness, and perfect existence who created mindscreen simulants for various reasons. The creator-simulator has given means and ways for mindscreen simulants to desimulate and become aware of the infinite mind and being of the creator-simulator.

Mental Entity (ME): Any mental content of mind, any chunk, be it thought, feeling, and so forth, existing in the stream of mindscreen experience and mental reality, whether atomic or non-atomic chunks of experience.

Mind: mindscreen.

Mind dislocation: This is when a mindscreen believes it exists and lives in a physical reality, in a physical body, when in fact that mindscreen does not, and those experiences are merely nonrepresentational content not connected

to any exteriority. In other words, this is when a mindscreen believes the picture-cinema of its mindscreen reality is about a reality outside of itself, rather than merely a picture cinema mainly or completely in the mind alone, more akin to a dream. The mindscreen does not give evidence for the existence of mindscreen being about contents outside of itself, and the more logical thesis is that mindscreen contents are a mere cinema not representing a reality beyond itself.

Mind Prime (M_p): This is *your* mind, which is a sentient mind, consisting of thoughts (T, T^* , T^{**} , etc.), feelings (F, F^* , F^{**} , etc.), visualizations (V, V^* , V^{**} , etc.), and qualia (q, q^* , q^{**} , etc.). (For those philosophers who do not believe in qualia, they can merely be dropp qualia out of this definition to suit their preferences.)

Mindscreen: This is a person, a mind, a soul, a simulant, experiencing picture-screen feeling-consciousness, that does not represent any externality. Reality appears like a cinematic screen observed from moment-to-moment, and each subjectivity, or mind, that is in a state of simulation (having mind-dependent, mind-locked experience of worlds and realities) exists as varying planes and types of simulation vivency which it defines as "self", or "I". The simulation process involves cinematic-like mental experiencing (simulation) of patterned shapes and color-patches in what is simulated to and/or in the mindscreen as (i) a physical world, or as (ii) an inner-subjective reality of feelings, thoughts, etc. The boundaries between the (i) empirical and (ii) subjective often are unclear and smeared, but regardless, according to simulation theory both are part of the computer simulation (they, in the vast majority of cases, do not represent items outside of the mindscreen, such as other mindscreens, or the creator-simulator). The mindscreen is not actually a

part of a person (the real nature of self), and it is, in a sense, not fully real (it has less reality than the experience of the creator-simulator), both of which are realized during the stages of desimulation ecstasy, wherein the knowledge of the creator-simulator dominates all experiencing.

Nonrealism, ~**R**, **not-R**: This is the opposite of realism.

Realism (**R**): Representationalism³, and the idea that there is a physical reality outside of the mindscreen that is not only real outside of the representations, but where the inner representations accurately map the externality. In other words, realism is the trust and belief that what is experienced about the world in the mind is how the external world actually is. When a person sees a tree, the inner mental picture of the tree is merely a picture of a real mindindependent entity in a physical world. Realism is the opposite of mind dislocation: the reality you believe you exist in really is the one that you are in.

Simulation: Mindscreen content originating and being caused by not-R rather than R, implanted into M_p by an intelligence rather than from the environment (externality). In other words, an externality is not the cause of mindscreen experience.

Vivency: This word is defined by JC Gowan:

[Vivency is] the apparent reality associated with a certain state of consciousness. In our OSC [ordinary state of consciousness] this

³ What I mean by "representational", according to the philosophy of representationalism is the standard way that scientists view perception of the world. Representationalism involves the idea that sense organs take in microscopic and/or quantum information from an external world (light coming into the eyes, tactile sensations, etc.), and the brain processes this information allowing the mind to form a picture experience. Experiencing does not happen where the external object is, or the sense organs, and occurs in the mind, which is not where the object is, but is in your brain (according to the standard views of physicalist thinking that dominates academia). So, the mind must create a copy (mindscreen) of the experienced parts of the world *in the mind*, far from the object, in order to experience.

vivency includes the physical universe... But as each state of consciousness may have different properties, so the laws and properties of each external state of nature may vary. The error is to assume that the external physical universe (the natural environment of the OSC) represents "ultimate reality" and that all other apparent external vivencies are illusions. In actuality, the external physical universe is the vivency of the OSC, and its laws are of the OSC. When we enter an ASC... we enter some vivency of the NOR [non-ordinary reality]... of which the laws of our external universe are only special cases⁴.

The Simulation Theory Argument

If mindscreen experience is actually a computer simulation, rather than a realist representation of a physical externality, then it will be demonstrable that the physical reality cannot be *represented* in a brain or nervous system, and for that reason, a human mindscreen cannot experience physical reality as typically believed, which is as a physical body correctly consciously experiencing via internal picture-screen consciousness recreations and maps of externality through a nervous system. Rather, mindscreen experience would not be generated by apprehending and processing information from an exteriority, from the world, but rather via from some other source, but made to appear to be about exteriority. In other words, humans view physical reality as a cinematic-like screen (mindscreen), but where the pixelated digital pictures, and screen-imagery, of landscapes and realities in consciousness, also involve olfactory, auditory, gustatory, and tactile elements, in addition to visual (picture screen) consciousness. do not exist in meat (that is, in brains (or any other purportedly evolved organic structures⁵), According to simulation theory, the brain

⁴ Gowan 1975, 11.

⁵ These sorts of screens are different from your HDTV, for example, which is a designed televisual screen. Mental televisual screens are alleged to be evolved, not designed screens.

is just another theme of the mindscreen's simulated reality, not a real mindindependent item: the brain, like a tree or a cloud, is just another part of the story of the cinematic nonrepresentationalist mindscreen existence.

Consider the following argument⁶:

- 1. Human experiencing contains *picture imagery* in subjective experiencing (ordinary consciousness involves picture consciousness: a picture screen—a mindscreen—in experience).
- 2. If consciousness (mindscreen) is a physical process, then it experiences and interacts with physical reality through matter (brain, nervous system), but matter, such as brains (lobes, tissues, neurons, chemicals, molecules, cerebrospinal fluid, etc.), does not have advanced feeling-infused televisual picture-screens of self-awareness any sort inside of them.
- 3. Organic brain matter, which is *meat*, does not seem like the sort of medium that can have precise and vivid mindscreen digitation in it (feeling, incredibly organized and patterned picture thoughts, etc.), and suggesting brain cells or groups of cells do, would be analogous to suggesting that a hunk of meat can have an ultra-advanced self-aware cinematic mindscreen in it that has emotion, feeling, self-awareness, color experiencing, problem solving, and, possibly, qualia and free will. In other words, to suggest that meat can have in it, or could function as, self-aware feeling-infused digital picture screen televisions, would be to suggest that inside of meat are seemingly supernatural, or at least ineffable, computers of such complexity that humans cannot even define them yet. In this

⁶ This argument is given in terms of sight experience, but can be given in terms of other mental intensities (auditory, gustatory, olfactory, and tactile experiences, in addition to other intensities not as widely discussed, such as the "feelings" one has of ascending or descending, such as in an elevator).

- article, the thesis will be taken that such is impossible, and meat does not have such self-aware televisions, let alone *experienced* televisual screens of any sort.⁷
- 4. Mindscreen experience not only involves the cinematic feeling-content of mind, but also *experiencing*, which is a self-aware "entity," for lack of more precise wording, and which, it is safe to say is, to this point, ineffable, and a process that is beyond scientific measurement. It is seemingly safe to conclude that feeling-infused cinematic self-awareness is not derivable from chemicals: it appears safe to conclude that no matter how many chemicals one puts in a vat, and which way one mixes them in any complicated way, the chemistry will not start *feeling*, will not spontaneously come to *self-awareness* and picture-screen cinematics. I can imprint or cause an image in a chemical soup, such as by cymatics (sound vibrations), but the chemistry will not have experiencing, it seems safe to assume, since, no such instance of self-aware, feeling-infused experiencing chemicals have ever been observed or created, including in the chemical soup of the human brain. If we can assume chemicals are not the sort of entity that can serve as a medium for such experiencing, then a physical brain cannot consciously be an *experiencing* mindscreen.
- 5. Following points 3 and 4, picture consciousness is not located within, and does not come from, organic matter, so picture consciousness (or any other ineffable intensities of mind) cannot operate via brain (or matter) to interact with and/or perceive and represent physical reality or any exteriority.

⁷ Jack Gallant's research at UC Berkley, which might, at this point, be considered by some to contain an objection to this premise, and thus to this argument overall, will be discussed in detail below, and will be found to not contain any such objection.

- 6. The human mind (mindscreen) cannot be located within the physical reality (in the physical-empirical cosmos), as an organic being that it believes it is located within from the indications of the mindscreen.
- 7. Human mindscreen experience of physical reality is not the reality that the mindscreen exists amid.
- 8. Human mindscreen experience of physical reality does not represent mind-independent physical objects and a mind-independent externality.
- 9. CONCLUSION: Nonrepresentational mental experiencing of a physical reality is a fabricated (artificial) mental model (simulation) since it is not caused by any externality.

A human believes he has a mind for interacting with the world via organic matter (a brain or nervous system), but the argument just given shows that a mind apparently does not, and cannot, use organic matter, or any known matter or medium, to perceive and represent an externality. A human is not where he assumes he is (in the physical reality), and her interaction with physical reality is some sort of internal cinema, rather than light-information taken-in, obtained, perceived, from an externality outside of the mindscreen. A human mindscreen beholds a colorful array of picture imagery in orderly sequence, and thus the cinematic mindscreen is known to exist directly (nonrepresentationally), but contents represented beyond the mindscreen cannot be known directly. Brain-meat is not the sort of medium *needed* to create ineffable self-aware representational feeling-consciousness, our bodies cannot produce world-experience, and brain-meat therefore is merely part of the simulation reality. In more precise words, if, in the represented world (which is the simulation, according to this article), there is no actual screen known to exist, no

⁸ According to the standard representationalist model, the inner screen is directly perceived, the external world is not directly perceived.

self-aware digital cinema-screen measured to be *experiencing* or *experienced*, as premises 3 and 4 of the simulation theory argument above would appear to indicate, then representational picture-screen consciousness of a world outside of itself, cannot exist via the physical world that the mindscreen involves.

In addition to imagistic mental screens, human consciousness also involves olfactory, gustatory, auditory, and tactile experiences, just as mental picture screens are in brains via representation, brains and matter also do not contain vibrating speakers or hearing devices, nor taste buds to taste, or noses for smelling. *Experiencing* does not occur in the noses, eyes, ears, tongues, and skin sensors. It occurs in mental space, where the precise nature or location of mentation has not been discovered. In other words, the self-aware *experiencing* of these mental realities has not been measured in brain-meat. I can put in my inner experience, right now, the sound of a car horn that I heard earlier today, but there is no vibration and sound system in my brain, so the sound experience occurs by an a means foreign to what sound *is*, which is matter vibration.

Ubiquitously, it is assumed by academics that mind is (somehow) physical, despite the lack of evidence or even counter-evidence. This is where virtually all academic work on consciousness begins, and to suggest otherwise is nearly an embarrassment. Direct awareness of mindscreen consciousness reveals that it appears not physical, but that finding is not tolerated by contemporary academics, despite the direct (introspective) evidence, which, it seems, could be widely agreed upon. Consider what Searle writes, in the appropriately titled *The Mystery of Consciousness*, in the third paragraph of the book:

Compared to mountains and molecules, consciousness seems "mysterious," "ethereal," even "mystical." Consciousness does not seem to be "physical" in the way that other features of the brain, such as neuron firings, are physical.

14 - Simulation Theory, Jeff Grupp

Nor does it seem to be reducible to physical processes by the usual sorts of scientific analyses that have worked for such physical properties such as heat and solidity.⁹

But then, in the next paragraph of his book, and believing the only way to handle the seeming nonphysicality of consciousness, is via dualism, rather than simulation theory, Searle writes:

But dualism as traditionally conceived seems a hopeless theory because, having made a strict distinction between the mental and the physical world, it cannot then make the relation of the two intelligible. It seems that to accept dualism is to give up the entire scientific worldview that we have spent nearly four centuries to attain. So, what are we to do?¹⁰

Note that Searle starts with the *assumption* that matter and the world outside of him is real, and then states that a nonmaterial mind cannot exist since it cannot interrelate with the material world. But if we merely abandon the unverified assumption that matter and the outside world are real entities independent of mind, then Searle's assumption fails, and the following argument emerges:

Since mind is, as Searle notes, seemingly nonphysical, and since the external world cannot be verified to exist independently of mindscreen experience, we can infer that, since nonphysical mind and physical world seemingly cannot interact then the physical world is not real (not a mind-independent realist externality), but is only a mindscreen reality.

Searle's account is an example of the way it is assumed that mind can only exist via brain, which, appears, however, to be incorrect, given the simulation theory argument above. Searle glues onto the idea that brains (meat) must have

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⁹ Searle, John, 1977, *The Mystery of Consciousness*, New York: New York Review of Books, p. xii.

¹⁰ Ibid., pp. xii-xiii.

consciousness (mindscreens). In other words, instead of following a coherent and evidence-based theory (that mind might be more like a nonphysical item, so evidence of the existence of the world is assumption at best and contradiction at worst), he locks onto a perhaps impossible thesis (mind is physical, so world is real and meat has computers and screens inside of it of vast, even seemingly near supernatural complexity). This is why something like the simulation theory argument, even though most logical, is not even approached by professional academics, who, rather, start with the aforementioned assumption that supernatural televisions and computer programs spontaneously evolved in, and exist within, meat, even though no such televisions and computers have been discovered in any single piece of meat (such as the brain) yet.

Mind-body dualism vanishes with simulation theory. Reality is neither considered to be materialist, idealist, or a combination of the two. Those are considered ideas in the mindscreen simulation, and instead, reality is known to be merely (1) mindscreen experience on the one hand, and (2) desimulated experience of the creator-simulator on the other. The thought of abandoning the physicalist thesis is nearly unthinkable in our current climate of academic materialism in the contemporary world. But this is strange, given the well-known power of the discoveries of Kant and those after him: that our reality is our experience, and we are locked inside of it, wherein, all we ever know is experience (mindscreen), and whether anything else exists is assumption. In other words, matter, the physical world, and ideas of physicalism, are all part of experience (mindscreen), and professional academics who hold to physicalism merely have to make a first, non-Kantian assumption, that physical reality is real and that our representations are about a reality outside of our self that is real. And as is also well-known, this is a gargantuan assumption! I merely don't

make this assumption, and the simple conclusion then that one arrives at is, quite plainly, *simulation theory*.

Another almost even more troubling reason that the physicalist-realist assumption is plainly incorrect, is the seeming fact that physical reality involves contradiction, to the point that all aspects of physical reality reduce to contradiction. This was the finding of Zeno in his Paradoxes. I also discussed this at great length in several publications (see Grupp 2005-2006 in Works Cited), especially my article on mereological nihilism (Grupp 2006), which went far beyond mere Zenoic discussion of the contradiction of physical reality via the Measure Paradox, and my 2013 talk on simulation theory at the University of Michigan – Dearborn. For over 2500 years, the way intellectuals have dealt with these well-known contradictions in physical reality, is to merely ignore them, and assert that there must be an explanation, which we humans just don't know yet. This is a problematical and concerning move, especially in light of the fact that the aforementioned contradictions of physical reality cease to be a problem in simulation theory. Intellectuals, therefore, go even to nonlogical measures to attempt to adhere to the physicality of the mindscreen presentation, and to keep their faith in the realness of externality, they behold from moment-to-moment of their mental life, despite the many obvious and insurmountable contradictions found in the simple descriptions of physical reality, via realism (R), that philosophers have been struggling with (or bypassing) for over 2000 years (such as dualism, physicalism of mind, representationalism and the homunculus problem, Zeno's paradoxes, mereological nihilism, and so on).

Objection to the Simulation Theory Argument: Jack Gallant's Research

Consider this passage from an article:

Scientists at the University of California, Berkeley, have managed to decode and reconstruct dynamic visual experiences processed by the human brain.

Currently, researchers are only able to reconstruct movie clips people have already viewed. However, the breakthrough is expected to pave the way for reproducing the movies inside our heads that no one else sees - such as dreams and memories.

"This is a major leap toward reconstructing internal imagery," explained Professor Jack Gallant, a UC Berkeley neuroscientist and coauthor of the study published online today in the journal *Current Biology*. "We are opening a window into the movies in our minds." According to Gallant, practical applications of the technology could eventually include a better understanding of what is happening in the minds of those who cannot communicate verbally, such as stroke victims, coma patients and individuals with neurodegenerative diseases. It may also lay the groundwork for brain-machine interface so that people with cerebral palsy or paralysis can guide computers with their minds...

"Our natural visual experience is like watching a movie," said Shinji Nishimoto, lead author of the study and a post-doctoral researcher in Gallant's lab. "In order for this technology to have wide applicability, we must understand how the brain processes these dynamic visual experiences"... They watched two separate sets of Hollywood movie trailers, while an fMRI measured blood flow through the visual cortex, the part of the brain that processes visual information. On the computer, the brain was divided into small, three-dimensional cubes known as volumetric pixels, or "voxels." The brain activity was recorded while subjects viewed the first set of clips which were fed into a computer program that learned, second by second, to associate visual patterns in the movie with the corresponding brain activity. Brain activity evoked by the second set of clips was used to test the movie

reconstruction algorithm. This was done by feeding 18 million seconds of random YouTube videos into the computer program so it could predict the brain activity each film clip would most likely evoke in each subject. Finally, the 100 clips that the computer program determined were most similar to the clip that the subject had probably seen were merged to produce a blurry, yet continuous reconstruction of the original movie. Reconstructing movies using brain scans has been somewhat of a challenge because the blood flow signals measured using fMRI change much more slowly than the neural signals that encode dynamic information in movies. As such, most previous attempts to decode brain activity tended to focus on static images.

"We addressed this problem by developing a two-stage model that separately describes the underlying neural population and blood flow signals," Nishimoto added.

Ultimately, Nishimoto said, scientists want to understand how the brain processes dynamic visual events that are experienced in everyday life.

"We need to know how the brain works in naturalistic conditions... For that, we need to first understand how the brain works while we are watching movies."¹¹

It should be somewhat expected that the PVC (Primary Visual Cortex) would be discovered to have patterning correlating to vision experience, since, for example, such replicating of light information imprints starts in the eyes, where the imprint of what light brings through the eyes forms a picture and template of how light

¹¹ Brain imaging reveals the movies in our minds," September 22, 2011, by Trent Nouveau, *TG Daily*, http://www.tgdaily.com/general-sciences-features/58630-brain-imaging-reveals-the-movies-in-our-minds.

impacted the eyes. So, to see this transferred information to the PVC should be expected.

What the simulation argument above says is, essentially, that we can't have an ultra-advanced television made out of meat, but Gallant is, essentially, saying, despite how difficult it is to believe that brain-meat can have televisual data inside of it, and that meat can function as televisual data, we have discovered the rudiments of this brain-meat television. In other words, essentially, the simulation argument shows a paradox about experiencing the world via meat (brains), and Gallant's research purports so show that, surprisingly, there is no paradox, we just had not discovered it yet.

So, which view is correct? The simulation argument above, or Gallant's findings? If we find a clear and powerful contradiction in physical reality surrounding the concept that brains can take-in light-information via the eyes to form neural patterns in the PVC, then the idea that Gallant's research provides a problem for premise 3 of the simulation argument would fail, and the simulation theory argument would be the stronger thesis. It would then follow that Gallant's research is just an aspect of our computer programmed simulated existence, rather than a problem for the simulation theory argument.

And there *is* such a contradiction found in physical reality. Consider this account of the discovery of a person that could think, and who was even an honor's student in mathematics, but who had nearly no brain, published in the journal *Science*:

Lorber believe that his observations on a series of hydrocephalics who have severely reduced brain tissue throws into question many traditional notions about the brain... "There's a young student at this university," says Lorber, "who has an IQ of 126, has gained a first-class honors degree in mathematics,

and is socially completely normal. And yet the boy has virtually no brain." The student's physician at the university noticed that the youth had a slightly larger than normal head, and so referred him to Lorber, simply out of interest. "When we did a brain scan on him," Lorber recalls, "we saw that instead of the normal 4.5-centimeter thickness of brain tissue between the ventricles and the cortical surface, there was just a thin layer of mantle measuring a millimeter or so. His cranium is filled mainly with cerebrospinal fluid...

But, startling as it may seem, this case is nothing new to the medical world. "Scores of similar accounts litter the medical literature, and they go back a long way," observes Patrick Wall, professor of anatomy at University College, London... How can someone with a grossly reduced cerebral mantle not only move among his fellows with no apparently social deficit, but also reach high academic achievement? How is it that in some hydrocephalics whose brains are severely distorted asymmetrically, the expected one-sided paralysis is typically absent? ... It is... not surprising that many hydrocephalics suffer intellectual and physical disabilities. What is surprising, however, is that a

substantial proportion of patients appear to escape functional impairment in spite of grossly abnormal brain structure. 12,13

There are many cases of hydrocephalics with shockingly little brain matter. My point here won't be to try to say that brain matter is not being used, but my point will be, rather, to suggest that we do not have evidence that there is a PVC at work in situations like with Lorber's honors student in mathematics. In other words, if there are cases where honors students in mathematics use nearly zero, or perhaps zero brain matter, to have visual experience of the world, with no evidence of a PVC at work in this representing process, and evidence that a PVC does not even exist in this particular person, then we arrive at the following reduction ad absurdum argument to the idea that our reality involves humans who have brains that create televisual picture-screen experience:

Also, and perhaps related to this issue, box jellyfish have eyes (24 of them) but no brain, so how does it process information from the eyes? how does it make 'decisions' about it's reality (since, presumably, eyes prompt such activity as making decisions) from the eye info without a brain? Where does the information from the eyes go if there is no brain? See Brainless Jellyfish Navigates with Specialized Eyes, by Wynne Perry, *LiveScience*, 4/28/2011, http://www.livescience.com/13929-box-jellyfish-eyes-navigation-brain.html, where we find this passage:

The skyward gaze of one set of eyes belonging to box jellyfish provides evidence that these creatures -- which lack a conventional brain -- are capable of sophisticated behavior. New research has shown that one species of jellyfish uses one set of eyes to navigate and keep itself close to home.

"It is a surprise that a jellyfish -- an animal normally considered to be lacking both brain and advanced behavior -- is able to perform visually guided navigation, which is not a trivial behavioral task," said lead researcher Anders Garm of the University of Copenhagen. "This shows that the behavioral abilities of simple animals, like jellyfish, may be underestimated." Box jellyfish have 24 eyes of four different types, and two of them -- the upper and lower lens eyes -- can form images and resemble the eyes of vertebrates like humans. The other eyes are more primitive. It was already known that box jellyfish's vision allows them to perform simpler tasks, like responding to light and avoiding obstacles. (Itals added.)

The italicized part of this passage refers to the eyes being such that they can form images. But an image is a mental representation of nature, a picture in a mind: eyes don't have mental pictures in them, that's what minds are supposed to be doing, so the question would be, why do jellyfish have no brains but eyes that give rise to (mental) image formation? And, another question, is: How does it make 'decisions' about its reality (since, presumably, eyes prompt such activity as making decisions) from the eye information without a brain? Where does the information from the eyes go if there is no brain? Similar questions exist for other creatures, such as the slime mold, which can navigate through maze, by the mathematically shortest distance possible, to reach the food on the other side, and all this is done by a creature with no brain.

¹² "Is Your Brain Really Necessary?" *Science*. 1980. Vol 210. 12. December. P. 1232-1234.

¹³ Also, and perhaps related to this issue,

- 1. Gallant's research of brain-meat having televisual picture-screen representations in the neural activity provides a conceivable contradiction to premise 3 of the simulation theory argument, wherein the simulation theory argument would possibly fail.
- 2. Lorber (and others) have shown that some hydrocephalics function normally or even above normally without having primary visual cortex brain matter, as far as anyone can tell, or much of any brain matter at all.
- 3. 2 contradicts 1, and 1 fails.
- 4. Conclusion: not-1

Gallant's research would only apply to cases where televisually experiencing creatures have observable PVC activity. If there are televisually experiencing humans who do not have evidence of having a PVC or utilizing a PVC to copy imprints into the PVC from the eyes, then Gallant's research would not overturn premise 3 of the simulation theory argument, and Gallant's work is just part of the story and cinema of human simulated reality.

Furthermore, this objection that comes from Gallant's work is not as powerful as it first appears, for several reasons, one such would be that it is not an objection about *consciousness*, since Gallant's work is, rather, merely about *light* interacting with the body: first the retina, and then later the PVC. If light patterns are imprinted in the retina, to discover that they are imprinted in an area of the brain is not only not surprising, but quite expected. But to go the next step, and to describe how these light imprints in the meat of the human brain lead to self-aware digital picture-screen experiencing, flushed with feelings, higher order capacities to do higher-order mathematics, and so forth, is quite a departure from mere light-imprinting in the retina and then being copied into the brain.

The Thought Implantation Arguments

From the simulation theory argument, we can arrive at further, powerful inferences about simulation theory. Firstly, I will present an argument which shows that conscious mindscreen content can only be *implanted* by another mind, not perceived-and-processed in a representational scenario.

Consider the following reduction ad absurdum:

- 1. Not-R
- 2. Since any ME in M_p is not caused by externality via R, then any ME is caused by another mental entity, ME*.
- 3. But ME* would require ME**, and so on, ad infinitum.
- 4. If any ME is created by another, ME*, a vicious regress ensues.
- 5. CONCLUSION: Any ME cannot be created by any other, non-identical ME^{n*}.

Here is the argument, writing out the terms fully:

- 1. Conclusion of the simulation theory argument: consciousness is a simulation, not an apprehension of an externality.
- 2. Any mental content or mental entity does not come from any external reality, such as an external physical reality, so perhaps the mentation is caused by other mentation: one mental entity in one's mind (of any sort) can be the cause of, the reason for, any other mental entity that it appears to be possibly linked to in one's mind.
- 3. If one mental entity causes another, then another mental entity must cause the first, and another one causing the initial one, and so on, to infinity.

- 4. There is never a first step to the chain of mental entities causing one another, wherein there can't be any regress in the first place.
- 5. CONCLUSION: no mental entity of any sort can cause any other mental entity to exist.

This is a quite straightforward vicious regress situation, which is somewhat similar to the well-known homunculus regress. We know realism (R) cannot account for mindscreen content, and the above argument also shows us that thoughts can't generate each other to account for their existence (any chunk of mindscreen content cannot create any other chunk of mindscreen content). So, what is left? If mental content is not caused by an externality, and if mental content is not generating and/or causing itself, then it would appear that *mental content and mental entities (MEs) must be implanted into the mindscreen*.

Now consider this argument, which uses the conclusion of the last argument:

- 1. Conclusion of previous argument, \sim (ME \rightarrow ME*, for any ME or ME*).
- 2. Any ME, cannot create itself (lest that ME not have sufficient reason, unless the ME is a free-willed [supernatural] occurrence).
- 3. Not-R.
- 4. CONCLUSION: Mindscreen consists of processes where MEs are *implanted* into M_p by something from $\sim M_p$, and $\sim R$.

If MEs cannot come from within the mindscreen, or be caused by copying or representing an externality that the mindscreen (believes it) is interacting with, then it seems that the conclusion we are left with is that another intelligence is composing the mindscreen content and placing it in mindscreens.

Premise 2 is important, in that it points out that there are two types of mental entities: implanted, and free-willed. For those who do not believe in free will, then there would only be one sort of ME, which is an implanted ME. Many are troubled by free-willed events since, ultimately, to be truly free and having no external cause, these are self-caused events, and possibly supernatural. It is most likely that merely the impetus, the "choice" (regardless of whatever "choice" could possibly mean, mechanically speaking), is all that the mindscreen does in the free will situation, and where after choice is made (in the rare occurrences that such free willed events happen), the implanter-simulator-creator creates (implants) the consequent mindscreen content. In a Christian perspective, this is not problematical, and is expected, since the human mindscreen is in God's image, where God is a creator of things ex nihilo, and thus a human can be expected to be such as well—such as in a creator of free-willed events ex nihilo and supernaturally. Regardless, if there are some self-caused, possibly supernatural, MEs, they would be free-willed, and seemingly not implanted MEs, at least at their impetus, wherein not all of consciousness would be a computer simulation caused by external forces, since there would be a smattering of self-caused (free-willed) mindscreen events.

The word "implanted" here means that mental content is being placed into the mindscreen experiencing of M_p not by mapping its external environment via sensing (sense organs), nor by "one thought leading to anther", so to speak. Rather, a different means of MEs being placed into M_p exists. If MEs are not caused by an externality, nor by a mind causing its own content, the remaining option for how MEs could reside in M_p would appear to be that MEs are placed into M_p by another

intelligence, such as the creator-simulator (or another mind or mental creature in simulation-space that has the capacity to do so¹⁴).

When one introspects to see the chaotic nature of mind, and how thoughts and feelings, viewed through introspection, come and go, where self is not the cause or deliberator of these MEs coming-and-going quickly in consciousness, it therein appears roughly as if thoughts and MEs are being implanted, and certainly do not appear as if one is choosing which MEs appear in mind, and introspection shows the mindscreen to take on the appearance of *an entity out of the control of the simulant*! This is a widely discussed mystery (though not a mystery for simulation theorists), such as with David Hume's well-known analysis of mind that led him to question the nature and existence of the self.

The ME Implanter Creator-Simulator is an Intelligence (and is God)

A reason for believing the aforementioned implantation scenario is due to the mindscreen content appearing to derive from another intelligence. Consider the following argument:

- 1. Conclusion of previous argument (Mindscreen consists of processes where MEs are *implanted* into M_p by something from $\sim M_p$, and $\sim R$).
- 2. Collections of MEs that compose a mindscreen in M_p are not generated by copying (representing) the organized patterns from the content of a supposed externality.

 $^{^{14}}$ It does not seem that there could be another such implanter-mind or mindscreen *within* the simulation, since it, too, would have implanted consciousness (a simulated mindscreen), wherein the originator of the simulation, the creator-simulator, is the cause of the MEs for both M_p , and any other mind in the simulation that could be believed to be an implanter. In simpler terms, there can only be implanters outside of the simulation, and whom have control and capacity to implant MEs into M_p .

- 3. If mindscreen content is not a facsimile, then it must be constructed, built, fabricated, more analogous to an artist creating a landscape than a copymachine creating a landscape.
- 4. Collections of MEs that compose a mindscreen in M_p have organization, arrangement, which can only be positioned (strategically implanted) by an entity that can plan the construction of the mindscreen MEs.
- 5. CONCLUSION: The implanter of the MEs in M_p exhibits intelligence.

The implanter (creator-simulator) contains qualities possibly parallel to a computer programmer. The arguments given in this section appear to prove there is an implanter of MEs, and that would be a disproof of solipsism. That may not be a concern to many of the readers of this article, but a simple and powerful disproof of solipsism has not existed hitherto, and is something philosophers have been concerned with for some time. Further, just by directly knowing that M_p exists (which is irrefutable information), we can use that information to prove that a creator-simulator exists. This is roughly identical to saying that just by knowing M_p exists, one can know that God exists.

Reality Involves Other Mindscreen Simulants Not Identical to M_p

And since we know with logical certainty that a being describable as a creator God has created M_p , one's mindscreen, and continues to create it at all moments, probabilistically speaking, it is enormously probable that other simulants exist, and we are interacting with them via the simulation.

Desimulation experience confirms directly that the creator-simulator is a being of goodness, love and ecstasy, ¹⁵ which is available for anybody to verify. For that reason, the creator-simulator created you for a positive, loving, and ecstatic reason,

¹⁵ This point will be argued for in an upcoming paper I have nearly completed.

such as to have intimacy with you. This is the message of the theology of Christianity. Therefore, is it more likely that the creator-simulator created *only* you to interact with, or *also* other, and possibly infinitely many other, simulants for the creator-simulator's purposes? The creator-simulator would be a being that is difficult for M_p to understand, but it would appear difficult to hold the conclusion that M_p is the only mindscreen that the creator-simulator created. If that reasoning is correct, then there are more than one mindscreens in the simulation that we exist within.

Further, since it can be verified in desimulation experience (monastic Christian prayer, or Hesychasm prayer, to give just two examples) that the creator-simulator is a being, a spirit, of love, goodness, and pure joy, we can know the motives of the creator-simulator. For example, love is something between beings, not for a single being. A single could only love itself, which is narcissism, a type of misery. Love is shared across beings, so the nature of the creator-simulator is to love and be loved. It is therefore enormously probable that the creator-simulator created simulants to find love with one another, in order to generate yet more love, which the creatorsimulator would be interested in. For these reasons, it would appear to be inductively conclusive that other beings we are interacting with in our simulated mindscreen experience are the body-suits, the simulation guises, of other mindscreen activity in the simulation, and they are not mindless apparitions or beings with no mental content, with only the appearance of having mental content. In simpler terms, human simulants may be actually interacting via shared simulation experience, where picture-screen feeling-infused realities of mindscreen simulants mix, to some degree.

Mindscreen Simulation Theory as a Christian Theology

Ecclesiastes 11:5 (NRSV)

5 Just as you do not know how the breath comes to the bones in the mother's womb, so you do not know the work of God, who makes everything.

The above metaphysics contains many unanswered questions. For example, why would the creator-simulator implant realities into mindscreens that contain so much pain, sadness, and evil? Call that unanswered question, "the problem of evil." A question like this is best handled in two-steps:

- (1) Considering the above simulation theory as a Christian theology, since the problem of evil exists in Christian theology in analogous way as it does in the above simulation theory, and since Christianity appears to be a simulation theory, as will be shown below.
- (2) In Christian theology, the problem of evil can be explained as being an inevitable aspect of reality, and the only logical reality an infinite Creator could design, by including the hitherto unknown Scriptural datum of what is called *God's pre-election knowledge of the soul* (which will not be discussed in this paper, and which has already been discussed elsewhere, see Grupp 2018a, 2018b)

For reasons stated in (2), I will only discuss how simulation theory is a Christin theology, and I will only give an initial skeleton draft of Christian simulation theology.

Consider the following points, which seem to lead to a Christian simulation theology:

1. God is a Spirit (John 4:24), humans are in God's image (Gen. 1:26), and therefore humans also are a spirit. For that reason, humans are not describable by the paradox of the *physicalist* mindscreen brain-meat, held ubiquitously by

professional academics, but rather as ineffable supernatural feeling-infused mindscreens—which is precisely what human simulants can be verified to be, via the evidence of introspection, as discussed above in the discussion about the start of Searle's 1977 book.

2. The Bible says God is everywhere, God fills all things (Num. 14:21, Jer. 23:24), and all things are in God (Col. 1:16-17 NRSV). Mindscreens are in Christ (2 Cor. 5:17, Col. 2:10, Gal. 3:28, Rom. 8:1), and Christ is in human simulants (Gal. 2:20, Col. 3:11, 1 Cor. 6:19), and the Kingdom of God is within human simulants (Luke 17:21). Consider John 15:5:

I am the vine, ye are the branches: He that abideth in me, and I in him, the same bringeth forth much fruit: for without me ye can do nothing. (KJV)

3. The physical reality is a problem, or an enemy to the simulant (James 4:4, 1 John 2:15), and being in God's presence (Ps. 16:11), and in Heaven (Phil. 3:20), now (Ps. 13:5 NIV, Gal. 2:20), is desimulation joy.

The picture we have from Christian theology is that all is in Spirit, and Spirit is in all. All exists within the Christian God (nonphysical), and thus all is nonphysical, as is expected with the mindscreen metaphysics, but not with realist representationalist philosophy.

The conclusion of the mindscreen argument involves the idea that no *externality* can *cause* the mindscreen content. This may seem to suggest that a creator-simulator / creator-God cannot be the implanter, but note that in Christian metaphysics, such as found in John 15:5, God is described as *in* the mindscreen, *and* the mindscreen *in* God. God is therefore not an externality of the mindscreen simulant. The picture we have is one of an implanter that the mindscreen exists amid, *and* which exists in the

mindscreen, where both are spirit (Spirit and spirit), which is a better description of the supernatural computing minds needed for the ultra-advanced simulation apparatuses, such as mindscreens. The Bible never mentions that externality is real, and on the other hand, it regularly mentions that God is in the simulant, and the simulant in God. If the simulant exists in God, the simulant does not exist in a physical externality, but rather, exists in God, and thus in supernatural Spirit, which is precisely what simulation theory requires, and which is precisely what representationalist metaphysics cannot involve.

God would not be an externality to the mindscreen, nor would God use MEs to generate the mindscreen—but, rather, God is a *creator*, so when we say that God is the implanter of the mindscreen content, we also mean God is the creator of the mindscreen, the simulant, from moment-to-moment. The Christian God is an infinite Being (Psalm 147:5 KJV), and since God is Spirit, the simulation is, in Christian terms, entirely supernatural and best describable in terms of infinities and joy.

-Jeff Grupp, Lincoln Christian Seminary, January 4, 2019, www.PraiseandLove.net

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