

The Discovery of Black Light

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This article is the beginning of a reexpression, and partial revision, of my book Black Light. The questions that I discuss in this article are listed in the below list of sections. In Sections 7, 8, 27, and 28, I discuss my discovery of black light.

The theoretical discovery of black light (that is, the thought experimental discovery of black light): The black spatial field in, for example, a “dark” room is actually, I argue, black light; and it is emitted from everything in the spatial field of the room (that is, the relatively empty space, and all objects). If, hypothetically, the black light in the above room was removed, we, when we would look into the spatial field of the room, would be blind, despite that we have the capacity to see.

The observational discovery of black light: There is no such thing as a “colorless” visual field for observers: A “colorless” visual field would be a visual field of blindness for observers, despite that they have vision, and that their eyes would be open. The black visual field is not, as is commonly stated, “the absence of photons,” “the absence of visible light,” and the, as such, absence of color: If it were, then it would be “colorless” (that is, not black), and, as such, a visual field of blindness for observers.

The experimental confirmation of black light via neurophysics: In Section 28, I demonstrate that particular EEG experimentation that was done on test-subjects in various conditions provides evidence or proof that the black of the black visual field that strikes our retinas is black light.

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1. What are the spatial micro limit and macro limit of the universe?

The spatial micro limit of a spatial system, such as the universe, is the innermost spatial boundary of the spatial system, or the smallest pervasive feature of the spatial system; and the spatial macro limit of a spatial system is the outermost spatial boundary of the spatial system.

It is not possible to determine what the micro limit and macro limit of any spatial system is unless those limits are exceeded: From the inside of any spatial system, the most that can be done is to speculate what the micro limit and macro limit are.

A micro limit and macro limit, by virtue of being spatial limits, necessarily have other sides to those limits, for otherwise, they could not be observed to be limits, nor conceived of as limits.

Simply by virtue of having observed, or reached, what seems to be the macro limit of a spatial system, and not being capable of undergoing further observational exploration, or further spatial exploration, does not mean that what has been observed or reached is the macro limit. Moreover, thinking that it does not have the other side is inaccurate, for, again, all spatial limits have two sides, namely the internal side, and the external side.

Simply by virtue of having observed what seems to be the smallest pervasive feature of a spatial system does not mean that what has been observed is the micro limit of the spatial system: It is necessary to observe the proposed micro limit of a spatial system from the other side (the external side) of the actual micro limit in order to observe whether it in fact is the micro limit.

2. Is the universe expanding?

It is not possible to determine whether a spatial system is expanding unless the spatial system is observed from the other side of its macro limit: From inside of a spatial system, the most that can be determined is that one or more facets of its interior are expanding. Since the macro limit of the universe has not been observed, nor reached, nor exceeded, it is not possible to determine whether the universe is expanding.

3. Does the universe have a spatial micro limit and macro limit?

Since the universe is the totality of reality, it cannot have a micro limit and macro limit: To begin: The presence of a micro limit and macro limit of a spatial system entails that there is something that is on the other sides of those limits: There are always two sides to a spatial limit, for otherwise there would not be such a limit. Since the universe is the totality of reality, stating that it has a micro limit and macro limit would therefore mean that it is not the totality of reality.

4. Is the universe macro-spatially “infinite”?

It cannot be determined whether the universe is macro-spatially “infinite” because in order to determine this, it would be necessary to exceed “infinite macro-spatiality”: According to the concept of “infinite macro-spatiality,” itself, “infinite macro-spatiality” cannot be exceeded, nor reached. (Therefore, the accurate meaning of “infinite macro-spatiality” is “indeterminate macro-spatiality”; and the accurate meaning of “infinite” in this context is “indeterminate”).

Statements that the universe is macro-spatially “boundaryless,” “unending,” etc., can therefore be addressed with the aforementioned.

The use of the concept of “infinite,” in the sense of “infinite spatiality,” therefore entails conceptual and psychological dissociation from (a) the process of macro spatial exploration, and (b) the conclusion of indeterminateness: (a) and (b) are dissociated from, and it is then believed that the macro spatial exploration *could* “proceed eternally.” Regarding “eternal process”: It cannot be determined whether the macro spatial exploration could proceed eternally, because according to the concept of eternal process, itself, it cannot be undergone. (The concept of eternal process is dissociative as well: It entails conceptual and psychological dissociation from (a) the process of temporal exploration, and (b) the conclusion of

indeterminateness; and what is then meaninglessly stated, but which is emotionally puissant, is that the temporal exploration *could* proceed without conclusion).

5. What therefore is “infinity”?

“Infinity” is what I refer to as an “antonymic linguistic alteration” of the term ‘finite’: “Finite” has complete experiential meaning, and complete theoretical meaning; and then the term ‘finite’ is antonymized into the term ‘infinity’. The process of antonymic linguistic alteration, and the concurrent conceptual and psychological dissociation from (a) the process of the practical exploration of the size of something, and (b) the conclusion of the indeterminateness its size, give rise to the meaning of “infinite”: The antonymic linguistic alteration, and conceptual and psychological dissociation, entail immense psychological effects, such as excitement, and awe, and ensuing affinity for the word ‘infinity’. Therefore: “Infinity” = “Infinity.” That is, “infinity” equals a particular way of arriving at the term ‘infinity’.

6. What therefore is “eternal”?

“Eternal” is what I refer to as an “antonymic linguistic alteration” of the term ‘temporal’. “Temporal” has relatively complete experiential meaning, and relatively complete theoretical meaning; and then the term ‘temporal’ is antonymized into the term ‘eternal’. (Below I discuss what I mean by “relatively” complete experiential meaning, and “relatively” complete theoretical meaning). The process of antonymic linguistic alteration, and the concurrent conceptual and psychological dissociation from (a) the process of the practical exploration of the temporality of something, and (b) the conclusion of the indeterminateness of its temporality, give rise to the meaning of “eternal”: The antonymic linguistic alteration, and conceptual and psychological dissociation, entail immense psychological effects, such as excitement, and awe, and ensuing affinity for the word ‘eternal’. Therefore: “Eternal” = “Eternal.” That is, “eternal” equals a particular way of arriving at the term ‘eternal’.

7. Does the observable universe have a spatial micro limit and macro limit? And Part I of IV: How was black light discovered? How is black light experimentally confirmed?

Notwithstanding that the entirety of the observable universe cannot be observed – hence it should be referred to as the “potentially observable universe”; but for brevity I will refer to it as the “observable universe” – the fact that a portion of it can be observed means that it has a spatial micro limit and macro limit: Hypothetically, if the spatial micro limit and macro limit of a twenty cubic foot spatial region that is within the observable universe, and which does not consist of visible objects, nor 400nm-700nm light sources, were removed, the spatial region would, for a hypothetical observer who is within the region, become a “region” of blindness: The observer would become blind, despite having the capacity to see, because there would not be a black micro limit, nor black macro limit, to see. Moreover, the spatial region would discontinue existing: The spatial micro limit of a spatial region forms its fundamental internal structure, and the spatial macro limit of a spatial region forms its external structure; and as such, without either there would not be a spatial region: The aforementioned hypothetical removal of the spatial micro limit and macro limit would entail a structural disintegration of the spatial region that entails the discontinuation of the existence

of the region. (Of course, the observer would also discontinue to exist, but for the purpose of the hypothetical, the observer remains).

8. What is, and where is, the spatial micro limit and macro limit of the observable universe? And Part II of IV: How was black light discovered? How is black light experimentally confirmed?

As was discussed, the spatial micro limit and macro limit of the observable universe cannot be observed unless those limits are exceeded. However, candidates for those limits can be proffered, such as the following:

To begin: Hypothetically, if a relatively objectless region of a spatial field that is illuminated with 400nm-700nm is extracted, and viewed in isolation, while still being illuminated, it would be a region of blackness (including, of course, having no visible depth): The absence of particles in the spatial field whose surfaces reflect 400nm-700nm light in such a way that human neuro-ophthalmology can detect them as being of different colors besides black, and the absence of objects that form a spatial macro limit of the spatial field, and whose surfaces reflect 400nm-700nm light in such a way that human neuro-ophthalmology can detect them as being of different colors besides black, would result in the region of the spatial field being a region of blackness for human neuro-ophthalmology.

If the aforementioned 400nm-700nm illumination of the region of the spatial field was discontinued, the region would still be a region of blackness: The 400nm-700nm illumination does not change the observable nature of the region of the spatial field.

If the black was removed from the region of spatial field, the region would, for human neuro-ophthalmology, become a region of blindness. This hypothetical is of thought experimentation that exceeds current experimental physics and theoretical physics.

Because the aforementioned blackness is something that is observed by human neuro-ophthalmology, it can be hypothesized to be removed. Moreover, because the removal of it from the aforementioned region of the spatial field would, for human neuro-ophthalmology, result in the region becoming a region of blindness, it can further be hypothesized to be something that is observed by human neuro-ophthalmology.

The presence of blackness in the aforementioned region of the spatial field, therefore, signifies the presence of *something* that is black. Moreover, because the blackness is *observed* by human neuro-ophthalmology, it is a black light.

If all of the light of the known electromagnetic spectrum is blocked from entering the aforementioned region of the spatial field, the black light would remain, including on the surfaces of, and within, any visible objects that are added to the region. This demonstrates that black light is emitted from the spatial field (that is, space), and the surfaces of, and within, all objects.

Because black light is emitted from space, inferred is that space is comprised of something that emits it.

When a region of the spatial field consists of particles whose surfaces reflect 400nm-700nm light in such a way that human neuro-ophthalmology can detect them as being of different colors besides black, and, or, when the region of the spatial field has a macro boundary that consists of objects whose surfaces reflect 400nm-700nm light in such a way that human neuro-ophthalmology can detect them as being of different colors besides black, and when the region is illuminated with at least a particular minimal extent of 400nm-700nm

light, such that the entirety of the region can be at least minimally observed by human neuro-ophthalmology, the preexisting black light is supplanted to various extents for human neuro-ophthalmology. Notwithstanding that the extent to which black light is objectively supplanted cannot be determined, due to, as will be discussed, the current, and possibly permanent, inability to measure it, inferred is that it is objectively at least partly supplanted.

Because black light is emitted throughout the entirety of space, and on the surfaces of, and within, all objects, what emits it can be inferred to be (a) pervasive throughout the entirety of the observable universe, including in all relative objects (below I will discuss what I mean by “relative object”), and (b) of the form of matter. Therefore, space is matter; and this matter, moreover, comprises all relative objects.

Inferred is that the matter that emits black light is, as such, black; and I will therefore refer to it as “black matter.” If such matter did not emit light, the aforementioned spatial conditions of blackness would instead be conditions of blindness for human neuro-ophthalmology. Moreover, black objects would not be seen by human neuro-ophthalmology. That is, they would be invisible to human neuro-ophthalmology.

(a) Because the observable universe is not replete with 400nm-700nm light, (b) because spatial regions of the observable universe that are relatively objectless are not illuminated by 400nm-700nm light, (c) because 400nm-700nm light sources are not permanent, (d) because it can be hypothesized that the observable universe would continue existing in the absence of 400nm-700nm light sources and 400nm-700nm light, and (e) because 400nm-700nm light sources and 400nm-700nm light can be removed from a spatial region, whereas black light cannot, it can be concluded that the natural state, or fundamental state, of the observable universe, is one that is replete with black light. Moreover, it can therefore be concluded that the space of the observable universe, and all of the relative objects of the observable universe, emit black light. Moreover, it can therefore be concluded that the space of the observable universe, and all of the relative objects of the observable universe, are entirely comprised of black matter and, as such, are naturally, or fundamentally, black in color.

The following is another reason for why it can be concluded that the space of the observable universe, and all of the relative objects of the observable universe, are entirely comprised of black matter, and are naturally, or fundamentally, black in color. To begin: 400nm-700nm light interacts with the surfaces of black matter, and human neuro-ophthalmology, in such a way that colors besides black are seen on the surfaces by human neuro-ophthalmology: The colors that are seen are not objective because they are produced by human neuro-ophthalmology: For beings with different neuro-ophthalmologies, (a) such colors would not be seen, (b) different colors may be seen, and (c) no colors may be seen, except the preexisting black: The visual field may remain black in the presence of any intensity of 400nm-700nm light; and 400nm-700nm light sources may be black. Because the black of black matter and black light is not dependent on 400nm-700nm light, nor any neuro-ophthalmology, it is objective.

(Because all matter is black matter, the different complexities of it can be inferred to be the result of different *condensations* of it. The different complexities could not be the result of different *combinations* of it, because one kind of existent cannot be combined with itself. Aside, inference can be made that the greater that black matter is condensed, the greater its emission of black light).

Because, as was discussed, it can be concluded that the natural state, or fundamental state, of the observable universe is one that is replete with black light, and that the space of the observable universe, and all of the relative objects of the observable universe, emit

black light, it can be further concluded that black matter, which, as was discussed, is what emits black light, is the fundamental constituent of the observable universe, and that, as was discussed, the different complexities of black matter are the result of different condensations of it.

Because black matter is the fundamental constituent of the observable universe, it is a candidate for being the micro limit of the observable universe. The black that is seen by human neuro-ophthalmology in various spatial conditions would be black light that is emitted from the micro limit of the observable universe.

Regarding what is, and where is, the spatial macro limit of the observable universe: To begin: In an enclosure in which there is no 400nm-700nm light, and an observer, the observer is not able to see the macro limit of the enclosure, because the observer's visual field is of opaque black light, or occluding black light: The opaque black light prevents the observer from seeing the macro limit, including if the observer's eyes were, hypothetically, 1mm from the macrolimit. Because of this, while the macro limit of the observable universe is, as is the case of the entirety of the observable universe, as was discussed, comprised of black matter, and emitting of black light, (a) if 400nm-700nm light cannot reach it, it could not be observed by human-ophthalmology through the micro limit of the observable universe, (b) if it remains black in the presence of 400nm-700nm light that reaches it, it could not be observed by human-ophthalmology through the micro limit of the observable universe, (c) if it does not remain black in the presence of 400nm-700nm light that reaches it, an observer could only, as was discussed, speculate that it is the macro limit, (d) if it is physically reached by an observer, the observer could only, as was discussed, speculate that it is the macro limit, and (e) if phenomena were observed that indicate that it is the macro limit, there could only be speculation that it is the micro limit.

9. What is the spatial dimensionality of the spatial micro limit and macro limit of the observable universe?

Proceeding on the hypothesis that black matter, which comprises the entirety of the observable universe, and which differs only in the extent to which it is condensed, is the micro limit of the observable universe: The micro limit would therefore be pervasive throughout the entirety of the observable universe; and as such, the micro limit would be what I will refer to as the "three dimensional surface" of the observable universe: The micro limit is present at any surface location, of any size, in the observable universe. (As I will discuss below, I refer to the three dimensional surface of the observable universe as, "Three Dimensional Surface, Fifth Spatial Dimension" (hereafter, "3DS/5D"), and that it could be traversed to the external side of it via what I refer to as the "fourth spatial dimension," namely what I refer to as "Inward." Hereafter, I will refer to the "Inward, Fourth Spatial Dimension" as "I/4D").

I/4D would be the spatial dimension that connects 3DS/5D to what is on the external side of it; and I will refer to what is on the external side of it as the "external universe," notwithstanding that it is the aspect of the universe that is internal to the observable universe.

For the moment, I will refer to the spatial dimensionality of the observable universe (hereafter, "ØU") as the following; and the below "1-3/3D" represents the dimensions of width, height and depth; and the parenthetical "I/4D" is as such because it is derived from 3DS/5D:

$$\text{ØU} = 1-3/3\text{D} + 3\text{DS}/5\text{D} (+ \text{I}/4\text{D})$$

(I/4D is listed below 3DS/5D because it is derived thereof; and of course, 3DS/5D is derived from the observation of and concept of black light, and ensuing concept of black matter).

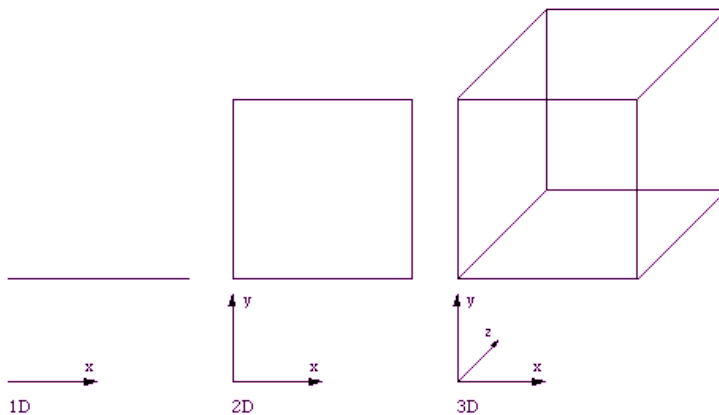
It is observationally self-evident that only relatively minute objects could traverse I/4D.

Hereafter, and also for the moment, I will express the spatial dimensionality of the observable universe as follows.

$$\emptyset U = 1-3/3D + 3DS/5D (+ I/4D) = 1-3/5(4)$$

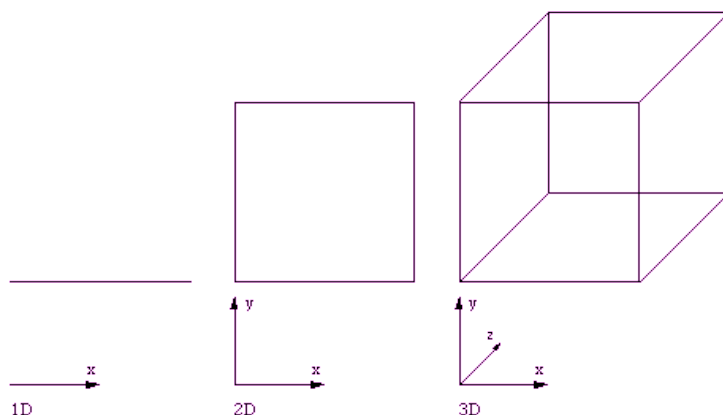
And I will hereafter refer to the spatial dimensionality of the observable universe as “1-3/5(4).”

Regarding what the spatial dimensionality of the macro limit of the observable universe is: To begin: In contrast to the 3DS/5D micro limit, the macro limit would be what I will refer to as the “surrounding lateral, and three dimensional, surface limit”: It would be located at the surrounding periphery of the observable universe; and it would be three dimensional, rather than “two dimensional”: The concepts of “one dimensional” and “two dimensional” are dissociations of the concept of three dimensional; and the phrases ‘one dimensional’ and ‘two dimensional’ are what I will refer to as “meaningless subtractive linguistic alterations” of the term ‘three dimensional’. To begin: All objects and phenomena of the observable universe, by virtue of being objects and phenomena in the observable universe, are extended three dimensionally in the spatial field, regardless of how some objects and phenomena are relatively extremely minimally extended as such. The concepts of “one dimensional” and “two dimensional” are dissociations of the facets of the concept of “three dimensional” from one another; and the attempted pictorial illustrations of “one dimensionality” and “two dimensionality” are, as such, practically negligent. That is, the conceptual dissociation results in the practical negligence. First, the following common illustration of “two dimensionality” –



– provides only the anterior (or posterior) perspective of the square; and conceptually neglected is that lateral perspectives of each of the four sides, as well as of each of the four corners (along with two sides), could be obtained, and that the square would not exist if there were no such perspectives: (a) There are, there have never been, and there never could be, objects for which such perspectives could not be obtained, and (b) it is conceptually

negligent to state that if an observer moved to those perspectives, the observer would not observe the sides of the square, and that the observer, as such, would not observe anything: When the observer moves to those perspectives, the observer sees the depth of the square, however minimal it is: The depth is immensely minimal compared to what it is in the below illustration of three dimensionality. Moreover, if the anterior perspective is provided in the illustration, then the square could be seen from the posterior perspective; and this would further demonstrate that there is depth in the square: Depth between the anterior and posterior sides of the square is what allows for the anterior and posterior perspectives. Second, the following common illustration of “one dimensionality” is also negligent:

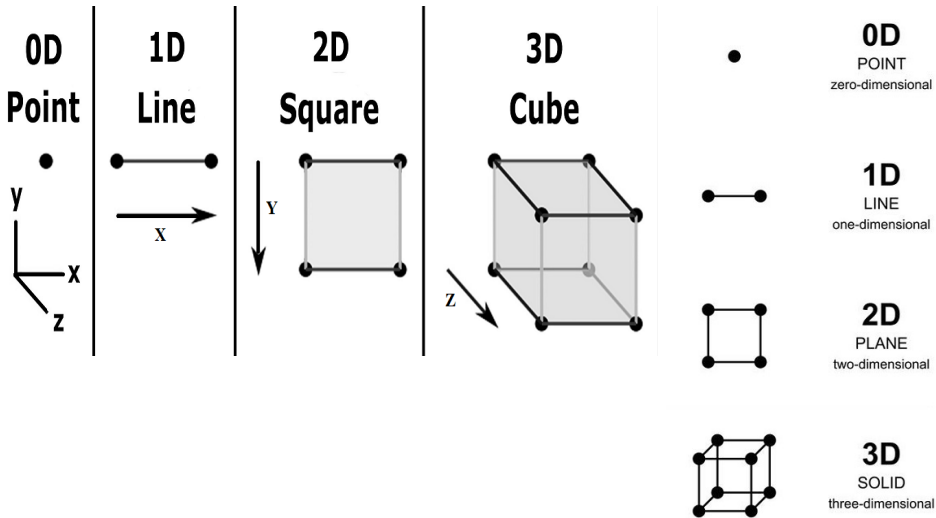


The illustration provides only the anterior (or posterior) perspective of the line, and neglected is that the superior and inferior perspective of the line, as well as the lateral perspectives of the two ends, could be obtained, and that the line would not exist if there were no such perspectives: (a) There are, there have never been, and there never could be, objects for which such perspectives could not be obtained, (b) it is negligent to state that if an observer moved to those perspectives, the observer would not observe the sides and ends of the line, and that the observer, as such, would not observe anything: When the observer moves to the lateral perspectives, the observer sees the depth of the line, and the height of the line, however minimal they are: Both are immensely minimal compared to what they are in the above illustration of three dimensionality. Moreover, when the observer moves to the superior and inferior perspectives, the observer sees the height of the line. Moreover, from the anterior (or posterior) perspective that is provided in the illustration itself, the height of the line can be seen: A line cannot exist, nor be pictorially illustrated, that does not have height. Moreover, if the anterior perspective is provided in the illustration, then the line could be seen from the posterior perspective; and this would further demonstrate that there is depth in the line: Depth between the anterior and posterior sides of the line is what allows for the anterior and posterior perspectives. Third, and as the above demonstrates, the three spatial dimensions of three dimensionality cannot be conceptually separated, nor practically separated: They are not discrete facets of three dimensionality that can, as such, be conceptually joined, and practically joined, in order to create three dimensionality, and conceptually separated and practically separated in order to remove three dimensionality, but rather, are facets that are formally enjoined (or indissoluble). It is not even as if, hypothetically, the removal of one

or more of the dimensions from an object, or a pictorial illustration, would result in the discontinuation of the object, but rather, that such hypothetical removals are nonsensical, as they are of conceptual dissociation, and ensuing practical negligence.

Concurrent with the aforementioned conceptual dissociation and ensuing practical negligence is what I refer to “meaningless subtractive linguistic alteration”: The coherent concept of three dimensionality (that is, the non conceptually dissociative concept of three dimensionality) warrants the linguistically meaningful term ‘three dimensional’; yet the terms ‘two dimensional’ and ‘one dimensional’ are not warranted, as was discussed, and instead, and as such, are only numerically subtractive alterations of the term ‘three dimensional’: ‘Three dimensional’ is reduced via numerical subtraction to ‘two dimensional’ and ‘one dimensional’.

As an aside, notwithstanding that the concept of “zero dimensionality” is not a dissociation of one of the facets of the concept of three dimensionality, because the facets of the concept of three dimensionality are the one dimensional, two dimensional, and three dimensional, the pictorial illustration of it is practically negligent, and the term is a meaningless subtractive linguistic alteration. The following are two common pictorial illustrations of “zero dimensionality”:



From the anterior or posterior perspectives of any pictorial illustration of a point, however, minute it is, the width and height of the point can be seen; and from the two lateral perspectives of any pictorial illustration of a point, the depth can be seen. Therefore, the concept of a point as “zero dimensional” is maximally practically negligent and of maximal subtractive linguistic alteration.

The macro limit of the observable universe would therefore be a surrounding lateral, three dimensional surface limit. Moreover, it may be relatively immensely minimal in depth compared to the other content of the observable universe.

Because the entirety of the observable universe is $1-3\frac{5}{4}$ spatial dimension, the macro limit is also $1-3\frac{5}{4}$ spatial dimensional.

The macro limit could be traversed to the external side of it via what I refer to as the “sixth spatial dimension,” namely what I refer to as “Outward.” Hereafter, I will refer to the “Outward, Sixth Spatial Dimension” as “O/6D”. O/6D would be the spatial dimension that connects the macro limit with what is on the external side of it; and I will also refer to what is on the external side of it as the “external universe”.

Whereas Inward traverses to what I will discuss below as the “micro external universe,” Outward traverses to what I will discuss below as the “macro external universe.”

Hereafter, and for the moment, I will express the spatial dimensionality of the observable universe as follows.

$$\emptyset U = 1-3/3D + 3DS/5D (+ I/4D) + \emptyset/6D = 1-3[5(4)]6$$

10. What therefore is beyond the spatial micro limit and macro limit of the observable universe?

As was discussed, a micro limit and macro limit, by virtue of being spatial limits, necessarily have other sides to those limits, for otherwise, they could not be observed to be limits. Therefore, there is what I refer to as “micro universe” beyond the micro limit of the observable universe, and “macro universe” beyond the macro limit of the observable universe. I previously generally referred to what is beyond the micro limit as the “external universe”; and I likewise will generally refer to what is beyond the macro limit as the “external universe”; but I will also more specifically refer to each in the aforementioned ways.

Regarding what the spatial dimensionality of the external universe is, and what the content of the external universe is, there is a formal constraint on determining what they are, because in order to do so, it is necessary for an observer to exceed the micro limit and macro limit of the observable universe. I will discuss the formal constraint below, in the context of what I will argue is the necessary formal difference between the observable universe and external universe.

While the spatial dimensionality of the micro external universe and macro external universe may be different from each other, it also may be the same.

Notwithstanding that the sizes of the possible existents of the micro external universe would be immensely small compared to the observable existents of the observable universe, they may also exist in the macro external universe among the possible other existents of the macro external universe.

While the micro external universe and macro external universe may be formally different (that is, of different spatial dimensionalities), they may be formally the same; and if they are formally the same, they would be integrated; and if they are formally different, they would be separated by a spatial limit, namely the macro limit of the observable universe: The micro external universe and the observable universe would have the same macro limit; and concurrently this limit would be the micro limit of the macro external universe.

11. What therefore is the formal nature of the external universe?

The most fundamental aspect of a spatial system is its spatial dimensionality, because its content is of that dimensionality. The formal nature of a spatial system is therefore its spatial dimensionality.

A spatial limit, with the exception of what I will refer to as “the relative macro limits of the observable objects and observable phenomena of the observable universe,” which I will

discuss below, is a spatial limit by virtue of separating two formally different spatial systems, for otherwise the two sides of the proposed limit would be formally the same (or the same in nature): The proposed limit would simply be, for example, the general place of division between the content of the observable universe that is spatially dimensionally the same.

It is of course necessary to observe the external universe in order to possibly observe what its dimensional system is. However, because observers of the observable universe are formally different than what the content of the external universe would be, I predict that it would not be possible for observers, nor any of the content of the observable universe, except for certain micro content, which I will discuss below, to traverse the spatial limits of the observable universe. The only exception perhaps is if the traverse entails that observers formally change physically; although I predict that objects would disintegrate, or be substantially remodeled, upon undergoing the traverse, and that, as such, observers would no longer be able to undergo observation.

Because of the aforementioned, it cannot be determined what the formal nature of the external universe is. The most that can be determined is that it is formally different than the observable universe.

12. What is the spatial dimensionality of the spatial micro limit and macro limit of the objects of the observable universe?

As was discussed, the spatial dimensionality of the micro limit of the entirety of the content of the observable universe is the fifth spatial dimension; and as such, the spatial dimensionality of the micro limit of the objects of the observable universe is the fifth spatial dimension.

The objects of the observable universe are objects by virtue of being observed as spatial regions that are what I will refer to as “informally separate” from other spatial regions: All of the spatial regions are of the same spatial dimensionality; and as such, the macro limits of the spatial regions are simply general places of division between the content of the observable universe that is spatially dimensionally the same. For example, of a hypothetical region of water that is suspended in air, the macro limit of the region of water is simply the general place where the water generally discontinues, and where the air generally begins: (a) As was discussed earlier, the water and air are comprised of black matter, and are different because of the extent to which their black matter is condensed; and as will be discussed below, the differing condensations of black matter surely include different spatial patterns of condensation; (b) in order for the region of water and the region of air to be formally separate – that is, completely separate – they would therefore have to be of different spatial dimensionalities. As such, the spatial dimensionality of what I will therefore refer to as the “informal macro limits” of the objects of the observable universe is $1-3|5(4)$, which of course is the same as the entirety of the content of the observable universe except for its macro limit, which is $1-3|5(4)|6$ spatially dimensional. Moreover, informal macro limits are not true macro limits (that is, formal macro limits), and instead, are regions in which the spatially dimensionally identical content of the observable universe is enmeshed, albeit less so than within the objects themselves.

If the objects of a spatial region had formal macro limits, then each object would be its own observable universe, and all of the objects outside of its macro limit would be the external universe.

13. What is the fundamental matter of the observable universe?

As was discussed, I proffer that black matter and black light are the fundamental matter of the observable universe.

14. What is black matter and black light?

To begin: While candidates for what the formal nature of the observable universe is can be proffered – that is, what the spatial dimensional system is, what the spatial micro limit and macro limit are, where the spatial micro limit and macro limit are, what the fundamental matter is, etc., – in order to observe what the formal nature is, it is necessary to be outside of the spatial system, and, as such, in, and of, a formally different spatial system, namely the external universe. The formal (or fundamental) nature of a spatial system cannot be observed by observers who are of the nature of that spatial system, and, moreover, who are in that spatial system, because they are formally the same as the spatial system: It is only from a formally different spatial system, and beings in that spatial system who are, as such, formally different, that the formal nature of another spatial system can be observed: Observers cannot observe the formal nature of their own spatial systems because they are formally the same as those spatial systems.

Therefore, notwithstanding that observers can observe black light via human neuro-ophthalmology, their inability to observe (that is, see, measure, etc.) black matter, and see, measure, etc., what black light is itself, indicate that it is necessary for observers to be in, and of, a formally different spatial system in order to observe what black matter and black light are.

However, candidates for what black matter and black light are can be proffered. Based on what I have discussed to this time, I predict that black matter is a pervasive and continuous liquid that cannot be observed by observers of the observable universe.

We can observe semblances of black matter, for we, and everything that we engage with via our sensory faculties, is completely comprised of black matter. However, what we experience is via our neurologies and physical sizes: The combination of (a) our neurologies (our sensory experience, etc.), and physical sizes, with (b) black matter, results in what we experience. We cannot experience what black matter is itself.

Regarding the experience of black light with human neuro-ophthalmology, it is, of course, the case that it is not observationally self-evident, nor conceptually self-evident, that what we see is black light, for I am the first person of humanity to observe this, and to, moreover, conceptually prove it. I mention this in order to demonstrate the observational difficulty, and conceptual difficulty, of observing and conceiving of the aspects of the formal nature of the observable universe. Secondly, while we can observe black light in the sense of seeing it, we cannot see it itself. That is, we cannot see what it is comprised of. Instead, we, as is the case with the black matter, can only see a semblance of it, namely its black color. Moreover, we cannot see its different extents of condensation.

15. Is space curved? Can space be curved?

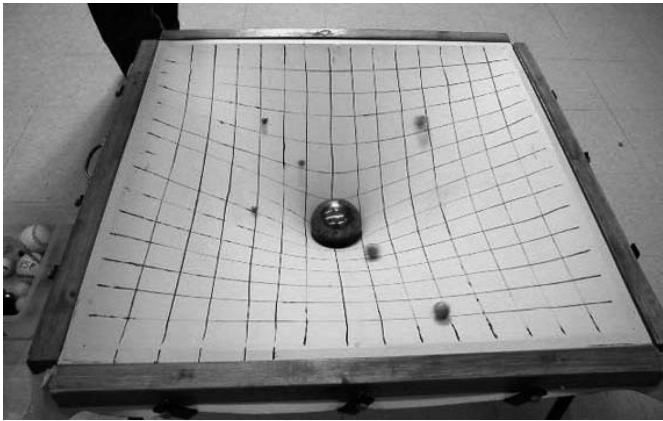
The interior of the observable universe, and the interiors of all of the relative objects of the observable universe, are extended 1-3|5(4) dimensionally to their spatial macro limits without shape. That is, their extensions in space, to their macro limits, cannot have shape. Instead, only their macro limits (the formal macro limit of the observable universe and the informal macro limits of the relative objects of the observable universe) can have shape.

The interior of the observable universe, and the interiors of all of the relative objects of the observable universe, can consist of distributions of condensations of black matter that are curved and which, as such, can cause a black matter of different distributions of condensations to undergo curved movement.

400nm-700nm light, whose otherwise naturally, relatively linear transmission is curved, is curved by the aforementioned.

As was discussed, the entirety of the content of the observable universe consists of black matter, including, of course, light; and as such, the curvature of light is due to the aforementioned.

Therefore, the term ‘curved space’ is meaningless; and the following dissociative phenomenon is how the term is arrived at: To begin: Pictorial demonstrations, and physical demonstrations, of “curved space” are prevalent, such as the following:



What is curved in the demonstrations are actually the macro limits of the objects. In the above pictorialization, the object is whatever is located below the grid macro limit, and which has the grid macro limit as its superior (anatomically superior) macro limit; and in the above physical demonstration, the object is the white sheet, and its superior surface is its superior macro limit. The dissociative phenomenon is that it is ignored that the above curves are curves of the macro limits of objects; and the description of the curves is then used to describe space.

There are no pictorial demonstrations, nor physical demonstrations, of “curved space,” because, as was discussed, space is not the kind of existent that can be curved. Even in the aforementioned physical demonstration, the space between the six macrolimits of the sheet (the four side macro limits, the top macro limit, and the bottom macro limit), notwithstanding that it is relatively extremely thin, is, itself, not curved, but rather, as was discussed, is extended without shape to its macrolimits.

16. What is a black hole?

Proceeding on what was discussed, a black hole consists of black matter. Moreover, its relatively immense gravity is due, in part (as I will discuss below), to its relatively immense condensation of black matter. Moreover, it, as being comprised of relatively immensely condensed black matter, emits a relatively immense extent of black light throughout its spatial field. Moreover, since the nature of all light is such that it is not transmitted only at the

surfaces from which it is emitted, but rather, through the spatial field, until it disintegrates, the black light of black holes, and the black light of the other content of the observable universe, is transmitted beyond the surfaces from which it is emitted.

Because black holes are located at the center of galaxies, and are as is described above, I predict that they serve as the hubs of galaxies – both the structural hubs, and the mechanical hubs: I predict that all of the black matter of galaxies is connected to them, and that they, being comprised of the most condensed black matter of galaxies, hold the less condensed black matter, thereby preventing it from dispersing outward, and disintegrating. Moreover, I predict that they are the mechanisms that rotate galaxies, as well as spin themselves. Relatedly, I predict that the central object of each solar system performs the same functions for themselves, and the solar systems, as black holes do for galaxies, and that each planet of solar systems perform the same functions for themselves, and what might be referred to as their “planet systems,” such as their moon or moons.

17. What is gravity?

Based on what was discussed to this time, gravity is, therefore, the effect of the combination of (a) the effects of the central mechanisms of object systems (galaxy systems, solar systems, planetary systems, etc., to particle systems), and (b) the different condensations of black matter of the relative objects, and relative regions of space, of the systems.

Gravity, therefore, is not a “force,” nor an effect of “curved space.”

18. What is “time”?

The only coherent question, actually, is, “Which time-theory is the most reasonable?” The questions, “What is time?”, “Which theory of time is the most reasonable?”, “Do you believe time exists?”, etc., are based on the assumption that “time” is something that is in the universe, or which could be in the universe, and that the problem is simply that of properly understanding what “time” is. However, (a) there is immense disagreement about what “time” is, and (b) what “time” is is not observationally self-evident, nor conceptually self-evident.

The term ‘time’ is of course pervasively used, and facily understood; and this is because it refers to the measurement of the procession of phenomena with a watch and the procession of the watch itself. For example, “I will attend in one hour,” refers to a particular extent of the procession of a watch, namely the procession of the watch mechanism for a particular amount of revolutions, or cycles, of the most rapidly moving facet of the mechanism, namely the second hand (and the corresponding facet for different kinds of watches). The cycling of the second hand for sixty times is referred to as “one hour.”

However, pervasively believed is that “time” is not simply the aforementioned, but rather, an aspect of the structure of the universe (that is, that it is a “dimension” of the universe) and that it, as such, began when the universe began and would end if the universe ended. Moreover, it is pervasively referred to as the “fourth dimension,” and numbered, as such, chronologically after the three aforementioned spatial dimensions. As such, it is pervasively conceived of as being spatial in nature (and as such physical in nature) and, as such, physically integrated with the three spatial dimensions (hence the concept of “space-time” and the pervasive use of the term ‘space-time’).

However, the above is simply a formal description of “time,” and not a description of what “time” is itself; and this is why, as was discussed, there is immense disagreement about

what “time” is. That is, because “time” is not observationally self-evident, nor conceptually self-evident, and because the formal description of time is, as a formal description, highly indistinct, there has never been, and surely will never be, agreement on what “time” is. Moreover, “time” is not “the fourth spatial dimension”: There is no pictorial representation of “the fourth spatial dimension”, nor, in lieu of a pictorial representation, a description of “the fourth spatial dimension”. Stating that “time is the fourth spatial dimension,” alone, is only psychological (that is, it only elicits psychological phenomena), rather than descriptive, and, as such, conceptual (that is, a concept). As such, there is no “direction” of “time.”

There of course are theories according to which “time” is not an aspect of the structure of the universe, and instead, something else, such as only a concept, and, or, what I described above in my discussion about the pervasive use of the term ‘time’, and the facile understanding of the term. However, there are no theories that consist of the following:

To begin: What time is, itself, is (a) the conceptual dissociation from the description of a time mechanism, and (b) the use of the dissociated description to describe the universe: The aforementioned description of a time mechanism is constructed, the description is dissociated from the concept of a time mechanism, and the description is then used to describe the universe, such that the universe is described as a time mechanism itself.

The reason that only the aforementioned formal description of time is possible is that the universe is, of course, not a time mechanism: All that can be done is to provide the aforementioned formal description; and this is surely why there is immense disagreement about what time is itself.

An analogy for the aforementioned dissociative phenomenon is the following; and the following, also, is not a theory that has been proffered: To begin: The process of having a psychological affinity for certain things is clearly understood, as is the ensuing reference to those things as being valuable: Humans of course desire an array of things; desire is a psychological phenomenon; and when those things are referred to as being valuable, this means that they are psychologically valuable (that is, subjectively valuable) to the people who value them. In ethics, the above process is dissociated from, and ensuingly, various things are conceived of as having a value that is independent of whether anyone has a psychological affinity for those things. That is, those things are conceived of as having “objective value,” which of course is also referred to as “moral value” and “ethical value.” Moreover, there is immense disagreement about what “objective value” is, and, what is “objectively valuable.”

The aforementioned general description of “objective time”, and the aforementioned general concept of “objective value,” are the same in nature; and the universe does not consist of “objective time” nor “objective value” because the description of “objective time,” and the concept of “objective value,” in the first place, are dissociative. Explained in another way: The terms “objective time” and “objective value” do not have specific definitions, and instead, only have formal, or extremely general, definitions, which, as such, do not refer to anything specific in the universe, because they are the result of conceptual dissociation. Moreover, the definitions, because they are as they are, give rise to immense disagreement.

19. What is “visible light”?

The band of light of approximately 400nm-700nm is universally considered to be visible light, and, the only visible light of the universe. However, what is universally meant by “visible light” is that the light interacts with the surfaces of objects (that is, relative objects, as was discussed), and human neuro-ophthalmology, in such a way that humans can see the surfaces of the objects. What is not meant is that the light, itself, can be seen.

As was discussed, black light, itself, can be seen by human neuro-ophthalmology. While it is emitted by black matter, it is not necessary for it to interact with the surfaces of relative objects in order for it to be seen.

Therefore, “visible light” is actually invisible light, and black light is not only visible light, but the only visible light of the universe.

If “visible light” was visible, then the visual fields of humans would be replete with opaquing color, including immediately in front of our eyes; and this would prevent us from seeing anything that is beyond the color or colors in front of our eyes. Analogously, black light is visible; and in spatial conditions of complete, or essentially complete, black light, it is located immediately in front of our eyes, as well as elsewhere, thereby preventing us from seeing anything except it.

20. Part I of II: How did the universe originate?

Of course it is the case that humans cannot know how the universe originated, because we were not there in order to observe it do so, and that only speculation can be proffered. Moreover, all speculation about this past unobserved occurrence which formally cannot be replicated (because we would have to be outside of the universe in order to replicate it, and this is not possible), and which cannot, if it did occur again, be observed (because it is not possible to be outside of the universe in order to observe it), is, as speculation about a past unobserved occurrence of this nature, formally inaccurate.

Since, as was discussed, the universe cannot have a spatial micro limit nor spatial macro limit, there is no possibility that its origin could have been observed, because there is no spatial perspective that is outside of the universe from which its origin could have been observed.

Since, as was discussed, it cannot be determined whether the universe is expanding, all origin-theories that are derived from the concept that it is expanding are inaccurate.

Since the universe is the totality of reality, the question of how the universe originated would have to include a description of the “pre-universe state,” or “pre-reality state,” from which the universe originated, and the method of origination. However, since the universe is the totality of reality, not only was there not such a “state,” but the phrase “pre-universe state” is conceptually meaningless, though perhaps psychologically puissant. Moreover, any attempts to describe such a “state” would simply result in descriptions of the universe.

21. Could the universe have expanded, be expanding, begin collapsing, and collapse?

Since, as was discussed, the universe cannot have a spatial micro limit nor spatial macro limit, all concepts that it expanded, is expanding and may begin collapsing, and collapse, are incoherent. In contrast, the *content* of the universe *may* have expanded, and may be expanding, and may begin collapsing, and may collapse. Moreover, since the entirety of the content of the universe cannot be observed, it can only be concluded that *some* of it may have expanded, be expanding, begin collapsing, and collapse.

22. Could the observable universe have expanded, be expanding, begin collapsing, and collapse?

The content of a spatial system can undergo such processes; and since, as was discussed, the observable universe is a portion of the content of the universe, it could undergo such processes.

23. How did the observable universe originate?

As was discussed about the universe, of course, it is the case that humans cannot know how the observable universe originated, because we were not there in order to observe it do so, and that only speculation can be proffered. Moreover, all speculation about this past unobserved occurrence, which formally cannot be replicated (because we would have to be outside of the observable universe in order to replicate it, and this is not possible), and which cannot, if it did occur again, be observed (because it is not possible to be outside of the observable universe in order to observe it), is, as speculation about a past unobserved occurrence of this nature, formally inaccurate. However, since the question is not of how the entirety of reality originated, but rather, of how a portion of its content originated, the speculation, while formally inaccurate, can proceed upon the basis that it was caused by the aforementioned external universe because (a) it exists within the external universe – that is, the external universe is what is outside of its spatial micro limit and macro limit, (b) the external universe is formally different than it, (c) the external universe does not have a spatial micro limit and macro limit, and (d) the external universe is the fundamental aspect of the universe, whereas it is a secondary aspect of the external universe.

Speculation about how the observable universe originated is additionally formally inaccurate because, regarding the aforementioned problem of replicating it, an observable universe cannot be created within a preexisting observable universe, because whatever is created would only be a portion of the preexisting observable universe.

There is, therefore, a practical basis to proceed with speculating about how the observable universe originated; and since the observable universe was caused by the external universe, the speculation must include speculation about what occurred via the spatial causal pathways between the external universe and the observable universe, namely the I/4 and Ø/6 spatial dimensions.

24. What caused the observable universe?

As was discussed, the observable universe was caused by the external universe. Notwithstanding that the causal incident was not observed by humans, and could not be observed by humans, the aforementioned is the basis from which it can be concluded with certainty that the observable universe was caused by the external universe.

The questions, “What caused X?”, and “How did X originate?” (or, “How was X caused?”) are of course different, as the first question refers to what condition, or thing or things, caused X, and the second question refers to the mechanism by which the condition, or thing or things, caused X.

As was discussed, an aspect of the mechanism of the cause of the observable universe is the I/4 and Ø/6 spatial dimensions (the spatial causal pathways between the external universe and the observable universe).

25. Part II of II: How did the universe originate?

While there is not a practical basis to proceed with speculating about how the universe originated, there is an analogical basis to do so. To begin: The content of the mind, in the absence of thought, especially the absence of mental sensory sensation, is seemingly in a state of nothingness: There is no mental space that remains when thought discontinues. From this state of nothingness, the thought arises. Thought, therefore, arises via the *conversion* of nothingness to it.

This is a novel concept of causation, as the prevailing concept is that something is necessarily caused by something else, which entails that there is no “first cause.”

Since thought arises from mental nothingness, the universe could arise from non-mental nothingness.

Nothingness is not an existent, phenomenon, state, etc.

The fact that thought arises from nothingness shows that nothingness is not permanent.

Nothingness cannot cause anything. The only alternative is that, in the case of the mind, thought is converted from nothingness; and in the case of reality, the only alternative is that the universe is converted from nothingness. This analogy is apposite, because in a sense, the mind is a mental universe; and thought does arise from nothingness.

Above, I mention that thought and the universe “arise from” nothingness, but I state this because of the public lack of familiarity with the phrase “thought converts from nothingness” and “the universe converts from nothingness.” The use of “arise from” is inaccurate, as it implies “caused by.”

26. What is “space”?

In Chapter 14, I stated the following, and thereafter discussed the following: “Based on what I have discussed to this time, I predict that black matter is a pervasive and continuous liquid that cannot be observed by observers of the observable universe ...” As such, it can be concluded that, regarding the prevailing description of “space” as being a spatial region in which there is no matter, there is, therefore, no “space.”

While, from our unaided visual perspective and unaided tactile perspective, there are spatial regions that seem to be only of space (that is, devoid of matter), our concept of those spatial regions as being only of space is inaccurate, as those spatial regions consist of an immense amount of matter that is too minute for unaided vision and unaided tactition. However, this is dissociated from, and the sensory experience of *relatively* empty spatial regions is used as the basis to think that there *could* be spatial regions that are completely devoid of matter, and, that the universe *could* be such that it does not consist of any matter, and, that in both cases, what would exist is only “space,” and that there is “space.” However, this concept of “space,” due to being dissociative in an aforementioned way, is inaccurate.

Each spatial region is a spatial region because of the presence of matter. If hypothetically, all of the matter of a spatial region was removed, there would be not be a spatial region.

The matter is therefore not extended “in space,” because there is no “space.” Instead, the matter is spatial, which could be expressed as that “matter is extended spatially.”

Therefore, at this point in my discussion, I have demonstrated that is no “time,” no “space,” and no “space-time.”

27. Part III of IV: How was black light discovered? How is black light experimentally confirmed?

The most complete and objective experimental confirmation of something is obtained via the relatively universal experience of it via aided or unaided human vision. As such, the greatest experimental confirmation of black light is via human vision.

The observational discovery of black light: There is no such thing as a “colorless” visual field for observers: A “colorless” visual field would be a visual field of blindness for observers, despite that they have a vision, and that their eyes would be open. The black visual field is not, as is commonly stated, “the absence of photons,” “the absence of visible light,” and the, as such, absence of color: If it were, then it would be “colorless” (that is, not black), and, as such, a visual field of blindness for observers.

Since black is a color, and since we can see the black visual field, the black visual field is therefore of black light.

Aside, there, of course, therefore, is no such thing as “darkness.” The opposite state to a state of light would be what I will refer to as “visual field blindness” (since the observers have the capacity of vision and since their eyes are open). However, this description is only of human neurology and does not describe the visual field itself. The visual field itself would be the region of “colorlessness.” Therefore, it could be stated that the opposite state to a state of light is that of colorlessness. Of course, though, persons with vision, and with their eyes open, have never encountered the blindness of colorlessness, because it is impossible to remove black light from the black visual field.

Aside, in the hypothetical condition in which all of the relatively separate objects were removed from a spatial region, and in which the macro limits of the region were not present (which is a profoundly dissociative hypothetical), and in which a 400nm-700nm light source illuminates the region, but which itself cannot be seen, the region would be a region of pure black light, because there would be nothing to reflect the 400nm-700nm light.

28. Part IV of IV: How was black light discovered? How is black light experimentally confirmed?

While this 2012 neuroscience study (Hendler, 2012) discusses an array of other phenomena, I have excerpted (Hendler, 2012: 4)¹ an aspect of the study that I believe provides additional experimental confirmation that the black visual field is black light. This kind of experimental confirmation is of neurophysics, and is seemingly the only experimental method of the entirety of physics that could possibly confirm black light.

To begin: First, the authors of the study believe that they demonstrate, as well as illustrate via the aforementioned excerpted diagram, concurrent with various explanations that are provided in the article, that of EEG study that was done on their test-subjects in the following four conditions – (a) eyes open, lit room, (b) eyes open, dark room, (c) eyes closed, lit room, (d) eyes closed, dark room) – it was irrelevant whether the room was lit or dark, and that the only thing that was relevant is whether the test-subjects eyes were open or closed: They believe, as they illustrate via their diagram, that the same alpha amplitudes occurred for both of the eyes closed conditions, regardless of whether there was light or darkness; and they moreover believe that the same amplitudes occurred for both of the eyes open conditions, regardless of whether there was light or darkness. Second, and as is illustrated in the diagram,

¹ <https://photos.app.goo.gl/z65xoGzVnJYsG2wx5>

the authors believe that both of the eyes closed conditions result in higher amplitudes, which represent significantly less intense brain activity, and that both of the eyes open conditions result in lower amplitudes, which represent significantly more intense brain activity.

However, the authors did not consider the following: When the eyes are closed, in most conditions, including when lying on the ground with the sun shining directly on the eyelids, most people immediately and autonomically discontinue seeing (that is, seeing the content of their closed-eyes visual field), and withdraw partly or completely into their minds, or withdraw partly into their minds while having different intensities of auditory, tactile, gustatory, and olfactory sensation. Moreover, it is extremely difficult to sustain attention on one's closed-eyes visual field, even when one intentionally attempts to do so; and surely this is why closing one's eyes is highly conducive to rest and sleep, as well as to having more acute auditory, tactile, gustatory, and olfactory sensation. Moreover, it would be physically devastating and psychologically devastating if the above was not the case.

Due to the aforementioned, the amplitudes of both of the closed-eyes conditions are not causally related to the lighting conditions (that is, the conditions of light and dark). In order for the amplitudes to be causally related to the lighting conditions, it would be necessary for the test-subjects to look at their closed-eyes visual fields and to sustain doing so for the thirty second intervals that the test-subjects underwent. I speculated that if the test-subjects did this, the high amplitudes that are shown in the diagram would instead be essentially the same as both of the open-eyes amplitudes. Aside, I however speculate that even if test-subjects were directed to do this for the thirty second intervals, many of them would not be able to do so for more than very brief periods of time, such as for various millisecond time-periods, to at most one to two second time-periods, and only very sporadically, especially after the first approximate five seconds of attempting to do so: I speculate that they would only be able to do so for a combined total of about 10% - 25% of the thirty seconds, because it is extremely difficult to override the highly powerful, and immediate and autonomic, change that occurs upon closing one's eyes. Also aside, I speculate that many test-subjects would not know how successful they were with the above directive, due to surely autonomically and unconsciously withdrawing from their vision for length periods of time. Moreover, even of the time-periods that they were able to see their closed-eyes visual fields, there nevertheless is the autonomic arising of the content of the mind, which would entail that of whatever of the visual field is seen, it is seen with substantially less acuity, because one's attention inexorably attends to one's mind (that is, one's thoughts, internal voice, emotions, etc.), as well as one's auditory, tactile, olfactory, and gustatory sensations. Moreover, I speculate that many test-subjects, upon being asked how successful they were, would provide significantly to immensely inaccurate answers.

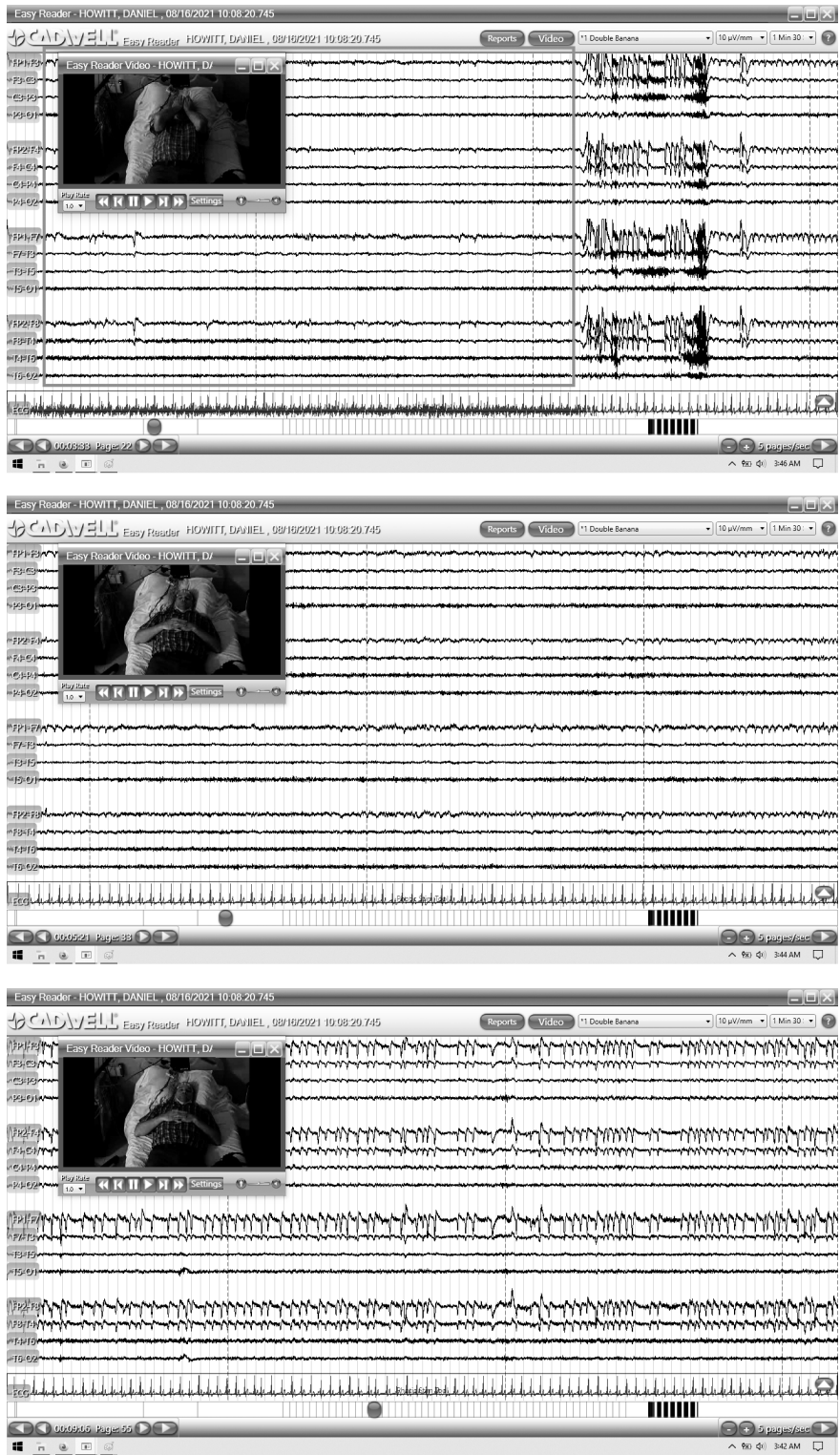
I, in concert with an EEG technician who conducted the EEG experimentation, underwent twenty minutes of EEG on August 16, 2021, which also consisted of concurrent video of me. Below are photograph-links to three screenshots of three 1 minute 30-second time-periods during the EEG.

<https://photos.app.goo.gl/4sYSyzkFNrjY3GmW7>

<https://photos.app.goo.gl/e47P2dBKLtgMds1Y6>

<https://photos.app.goo.gl/hjYGX5fBWWA4BiTx6>

The following are the screenshots:



The first is for a condition in which the 400nm-700nm light of the room was reduced by about 80% – complete darkness was not possible due to how the hallway-wall of the room, which was about five feet to my right side, consisted of glass that was covered by a thin curtain. (Due to the video's sensitivity to light, the first screenshot makes it appear as if there was less than an approximate 80% reduction of 400nm-700nm light). Moreover, I kept my eyes open, and occluded them securely with both of my palms, as is shown in the screenshot of me. This created an essentially completely dark condition, including the absence of any minute cracks of light around the seal between my palms and my eye-orbits. I also did not press on my eyelids to any extent with my palms, in order to avoid the phenomenon of phosphene. I also exerted extreme and persistent effort to continuously, or essentially continuously, see my visual field. The second screenshot is for a condition in which I had my eyes closed, but was exerting extreme and persistent effort to continuously, or essentially continuously, see my visual-field. The third screenshot is for a condition in which my eyes are open.

Before I proceed with additional discussion, I will mention the following about the difference between the EEG amplitudes that are shown in the screenshots, and those of the aforementioned 2012 EEG study. In the caption below the aforementioned diagram for the 2012 study, the following is stated:

The top row denotes average alpha derived from frontal electrodes (FP1, FP2, F7, F3, Fz, F4, and F8). The bottom row denotes average alpha derived from occipital electrodes (TP9, P7, O1, O2, Oz, P8, and TP10).

As such, the amplitude curves that are shown are arrived at, and formed as a single curve that occurs over thirty seconds, from the results of each of the above electrodes. That is, the authors constructed the amplitude curves in this way, using the actual multitude of amplitude curves that occur each second, as is shown in my EEG amplitude curves. Regarding my EEG recordings, the electrodes that were used are listed at the left, and the montage is listed at the upper right via the three values that are shown. Aside, I chose to provide a 1 minute 30-second time-period across the screen so that the results can be visualized better.

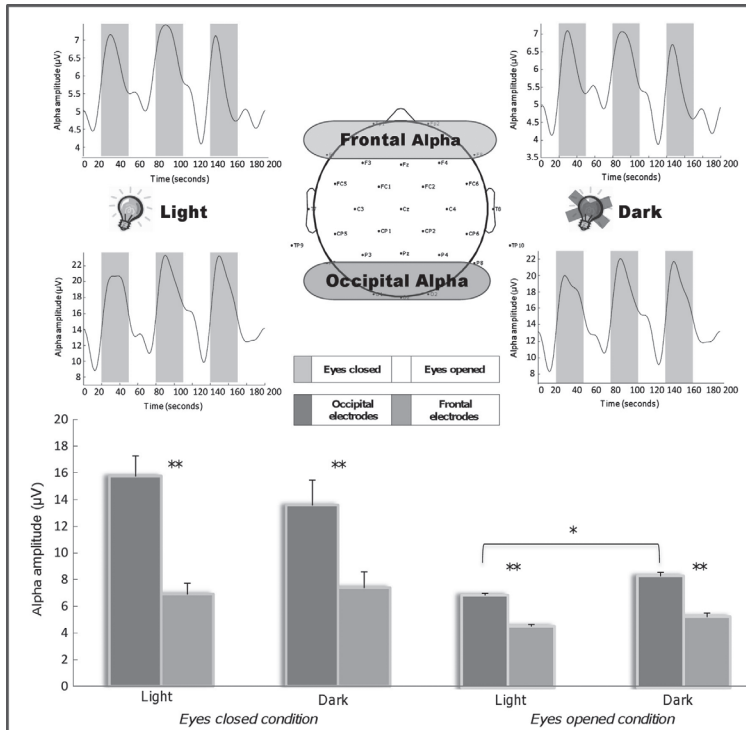
Now regarding my EEG recordings, as is especially shown for electrodes FP1-F3, FP2-F4, FP1-F7, and FP2-F3, the smallest amplitudes, and as such the most intense brain activity, occurs in the condition of "Eyes Open; Vision And 400-700nm Light Occluded With Palms." There is about a doubling of the amplitudes for the aforementioned electrodes in the condition of "Eyes Closed; Persistent Seeing of Black Visual Field." For the condition of "Eyes Open," there is an approximate five-fold increase of the amplitudes of the aforementioned electrodes compared to the condition of "Eyes Closed; Vision And 400-700nm Light Occluded With Palms." As such, the first of the above conditions consists of the highest extent of brain activity, and second of the above conditions consists of approximately double the brain activity of the first condition, and the third of the above conditions consists of approximate five times the brain activity of the first condition.

The above results are paradoxical according to current science, because typically, as the authors of the aforementioned 2012 study argue, the first of the above two conditions should consist of the lowest extent of brain activity. I, however, have demonstrated the mistake of current science.

Now, what explains why there is comparatively maximal brain activity for the first condition is that there is a comparatively maximal extent of black light that is striking the retinas and ensuingly impacting the brain. What explains why there is an approximate two-

fold decrease of brain activity for the second condition is that the eye-lids only attenuate approximately 80% of 400nm-700nm light: While the closed-eyes visual field is relatively dark (that is, relatively black), it nonetheless is not approximately purely black. What explains why there is an approximate five-fold decrease of brain activity for the third condition, compared to the first condition, is the absence of a visual-field saturated with substantial black light to immense black light: While there is 400nm-700nm light throughout the room, it is very minimal compared to when the visual field is saturated with substantial to immense black light.

Now, while, as I discussed, the two closed-eyes conditions of the aforementioned 2012 study are inapplicable – and here again is the diagram that is provided in the study, <https://photos.app.goo.gl/z65xoGzVnJYsG2wx5>, and the diagram itself,



– the two open-eyes conditions are applicable; and both demonstrate the presence of low amplitudes. While I cannot compare those low amplitudes to those of my EEG experimentation, due to how, as I discussed above, the authors constructed their single curves over thirty seconds, what is relevant is that the microvoltage of the amplitudes is low.

I of course did not experiment with a condition in which my eyes were open and the room was completely dark, due to what I mentioned above about the hallway-wall of the room. I plan to conduct this experiment in the future. I would expect the EEG amplitudes to be akin to the above third condition.

Digressing: There also is the problem of withdrawing from seeing one's visual field when one's eyes are open, and the context is completely dark. For this reason, I now believe that the result for the above 2012 study for the condition of eyes open in darkness is not

applicable, because the test-subjects were not requested to exert extreme and persistent effort to continually see their black visual fields. Moreover, there are an array of problems that are associated even with this, as I discussed above about the closed-eyes conditions of the above 2012 study.

I believe that my above first condition consists of comparatively very low amplitudes because I exerted extreme and persistent effort to continuously see my black visual field, as I did for my above second condition. Due to this, while the amplitudes for the 2012 study for the condition of eyes-open in darkness are low, likely due to a less intense autonomic response to withdraw from one's vision, the results surely would be considerably lower if the test-subjects did as I did.

Regardless, I can invoke the two open-eyes results of the 2012 study as evidence or proof that the reason that the results are essentially the same is that the test-subjects' retinas were being subjected to an essentially equal extent of light in both conditions, namely 400nm-700nm light for one condition, and black light for the other condition. This, concurrent with what I revealed about the mistake of closed-eyes conditions of the 2012 study, is what explains the extremely similar results. By doing what I did in my first condition and second condition, the amplitudes can be lowered significantly – that is, brain activity can be increased significantly.

Maximal brain activity can be obtained in the condition of complete black light, concurrent with the test-subject succeeding at persistently seeing the black light.

If in my second condition I would have allowed for the essentially autonomic withdrawal from my visual field, the amplitudes would have been the same as, or essentially the same as, my third condition. The same would have been the case for my first condition if I had closed my eyes.

All of the aforementioned provides evidence, or proof, that the black that strikes the retinas, and which as such causes us to see black in the visual field, is black light.

References

Hendler, T. (2012) The dark side of the alpha rhythm: fMRI evidence for induced alpha modulation during complete darkness. *European Journal of Neuroscience*, 37(5), 1-9.
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