

Consciousness, the Full Stack: Four-Layer Architecture=Language on Mind on STFC: Part 1 of 4

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Received: 16 Sep, 2022 | Accepted: 17 Oct, 2022 | Published: 21 Oct, 2022

Citation: Sipfle K (2022) Consciousness, the Full Stack: Four-Layer Architecture=Language on Mind on STFC: Part 1 of 4. *J Neurol Neurobiol* 8(2): dx.doi.org/10.16966/2379-7150.188

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Abstract

Consciousness research is a field beset with mystery and many conflicting theories. Each set of hypotheses and arguments in the present situation necessitate first identifying, conveying, and digesting entire platforms of presumptions and definitions from which to reason and work forward. There has emerged no standard, useful structure for work and discourse; prevalent large theories are deeply flawed and/or overly non-committal, typically from first assumptions. What is more reliable is limited in scope and reach.

While much work has been done by many this has not led to an understanding of fundamental consciousness. We know a good deal about how the networks of neurons in our heads calculate and process information, shedding light on how we think. This does not tell us how we feel. A mind is thinking plus, especially, feeling.

Therefore, we define a reference Architecture for consciousness to assist further research and discussion and we explain the motivations for its form. We present a set of postulates and basic hypotheses. We explain metatheory of consciousness, implied by and supported by the postulates, hypotheses, and architecture. We further start to dig into a theory within the various individual layers of the architecture. Throughout we make a limited set of commitments to what is probably true yet often unrecognized, with brief explanation in the text and references to the longer arguments, while leaving open for variation aspects that are not realistically constrainable at this time.

In the course of this article we consider basic mechanisms, the missing explanatory glue from the physical world to value and consciousness. We thus lay out the Sentonic Theory of Fundamental Consciousness (STFC) as principles of operation of the bottom half of the Architecture in real brains.

Keywords: Consciousness; Physics; Evolution; Feeling; Qualia; Mind; Cognitive; Affective; Architecture; Layered architecture

Introduction

The goals of this paper are: to define a reference architecture for consciousness to assist further research and discussion; to reveal the motivations for its form; to define a small vocabulary of related terms; to define a set of postulates and basic hypotheses; in the process, to explain metatheory of consciousness implied by and supported by the postulates, hypotheses, and architecture; further, to start to dig into a theory within the various individual Layers of the Architecture.

This paper thus comprises a concept of operations and architecture description document for a mindful brain, plus rationale and process notes on their derivations.

The term “consciousness” has been used to address everything from the smallest fundamental capacities enabling sentience to the internal world of a human mind [1-7]. In this paper we address all of it.

An architecture does not demand specific individual solutions for any of its components; it characterizes the solutions. The architecture is a generality that embodies a minimum set of appropriate assumptions so that progress can be built by all without every time having to

build or attach to a large custom, specialized platform with its own terminology and presumptions. It organizes study. The architecture builds in that about which we can be most confident while steering away from the most serious errors that have accumulated on the journey to understand consciousness [8].

I am presenting a layered architecture, cognizant of the building process of evolution. As with any proper architecture, work may be done in any of these layers without much regard for exactly how the above and below layers operate. This is a desired feature when legitimately available, which it is on a gross scale in the case of the mind and brain [9].

In addition to presenting the architecture itself, we populate it with metatheory. What is not an additional task of this brief paper is to make thorough arguments for the correctness of what is presented; this is done in other works, notably [9-11].

This paper is intended for people of many different primary disciplines and will avoid most jargon, for the dual reasons of easy reading and avoiding large amounts of standing presumptions that are often largely wrong and misleading [8]. It is also light on use of

existing frameworks for similar reasons. For serious progress on very hard problems, we must be willing to approach afresh and question assumptions. Practitioners in each discipline or theory will recognize concepts that have their own local names [5].

We tread some ground at the border of philosophy [12] and science. But we are interested neither in further characterizing all the things that could, in principle, be, or in showing data correlations that have no persuasive explanatory value toward identifying the actual sources of consciousness.

The layered Architecture provides a valuable frame of reference, context, and set of terms that allow further work against an organized structure, and communication of same, as has been done successfully in such diverse research areas as computer networking and organism classification.

The most elementary facts of brain anatomy and operations we don't belabor here and are widely available [13-15].

Definitions

Feeling: Experience. That which makes the hard problem [16].

Raw feeling: The concept of basal, indivisible feeling.

Qualia: The allegedly rawest feelings discernible to a mind, discovered through introspection.

Consciousness: Feeling and, typically, information processing affecting each other in organized fashion to make action decisions in the interests of a species.

Levels of Consciousness: A progression of fundamental consciousness, sentience, animal consciousness, human consciousness [10], see below.

Fundamental Consciousness (FC): The smallest element of what distinguishes consciousness; the actual smallest bit of feeling. Pure pain or pure pleasure. Somewhat similar concepts have been called preconsciousness, protoconsciousness [17], microfeels, and fundamental feelings.

Mind: An island of animal or human consciousness. On Earth, each requires and belongs to at most one brain.

Cognitive: related to thought and/or information processing and not to feeling (though in practice feelings typically accompany the cognitive).

Cognition: Thought, as opposed to feelings.

Perception: Informational understanding (not emotional).

Affective: related to feeling, not cognitive.

Valence: Goodness/positivity or badness/negativity.

Emergence: A consequent complex whole arising from the interactions within a system, that takes on its own characteristics not describable/expected in terms of just the individual elements of the system.

Important Assumptions

This paper makes a few assumptions, which are out of its scope to justify (instead see [9,10,17,18]).

Postulate 1: Physicalism is necessary and information- and computation-based theories cannot provide for the source of conscious experience.

Postulate 2: Consciousness functions within the same basic rules (including mathematics) as all other phenomena that also exist in Nature.

The Four-Layer Architecture: The Gross Architecture of Consciousness

We start by sectioning the vast scope of what is called "consciousness" into a few large categories of increasing capability (adapted from [10]).

a. Level 1 consciousness a.k.a. fundamental consciousness a.k.a. base consciousness

This consists of the smallest elements that represent experience (This is where free-standing experience occurs, without an observer [9,10]).

b. Level 2 consciousness a.k.a. sentience

Consists of everything that must be added to level 1 to make the sentience of the simplest sentient organism (This is where "subjective experience" occurs- it introduces the concept of an observer [9,10]).

c. Level 3 consciousness a.k.a. mind

Contains everything above level 2 that enables the behaviors and experiences up to the most complex of non-verbal organisms (by adding cognitive componentry) [19].

d. Level 4 consciousness a.k.a. human consciousness

That which has been attained by humans (by adding the symbolic manipulation used for language) [19,20].

Level 1 consciousness plus Level 2 consciousness are the foundation beneath the entirety of "consciousness" defined as "a bubble of experience" if that bubble "consists of colours, sounds, smells, tastes, etc." [21]. Level 1 consciousness has its own elemental bubbles of experience, which (as Eccles did) we may call "psybits," but the experience is more primitive and not in all occurrences integrated into any kind of mind or substantial piece thereof (in this way similar to [17]).

We will see that Level 1 is the root of actual experience, rather like Layer 1 of a computer network, the physical layer, moving around real, individual electrons. In both cases, all the rest sits on top and is connected assemblies [22-24] and software built on Level 1. If we simulate consciousness Level 1 and Level 2 and then put all the same algorithms atop them as we find in natural brains, we can get all the same behaviors, but that "mind" will not actually feel.

Level 1 Consciousness is the fundamental consciousness that is the physics manifestation of what is needed to build, from it, consciousness as we know it. The nature of this low level and the connection from it upward answers Chalmers's DJ hard problem [16]: feeling is a phenomenon of our universe that preceded minds and was discovered and exploited by evolution to build minds [9]. Once we put the horse before the cart, the hard problem evaporates.

Next, we move from conceptual and abstract observations to the question of how brains and minds are actually built. We construct as nature did, in layers whereby each earlier layer provides a platform for the next and new things become possible. Our conceptual identification and classification of Levels of consciousness (Figure 1) corresponds well, it turns out, with layers of architecture of real minds. These are shown in figure 2: The four architectural layers of consciousness.

This we call the Four-Layer Architecture or FLA (colloquially the "Florida Architecture").

| | | | |
|-----|----------------------------------|------------------------------|-----------------|
| IV | Verbal Mind. Abstracting | More wiring and "Algorithms" | Cognitive |
| III | Mind. | Wiring and "Algorithms" | Cognitive |
| II | Sentience. Qualia | STFC | Affective + Cog |
| I | Fundamental Consciousness | STFC: Particles, Fields | Affective |

Figure 1: Levels of consciousness.

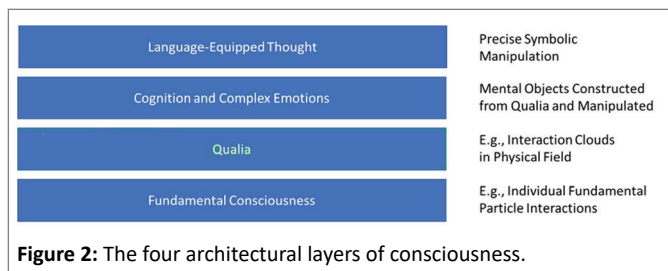


Figure 2: The four architectural layers of consciousness.

Now that we have specified the architectural concept of this evolved layering of consciousness, we shall discuss each of Layer 1, Layer 2, Layer 3, and Layer 4 consciousness. The compliant and motivating theory described for Layer 1 and Layer 2 we call the Sentonic Theory of Fundamental Consciousness, STFC, and as a body of thought, sentonism. Strictly speaking, STFC is a metatheory, as it is agnostic on some specific aspects for which there are multiple candidates.

Before delving into each Layer individually, we swiftly visit the philosophy and reasoning underlying the entire approach. The toughest questions pertain to the lower Layers and the higher layers naturally build upon those.

The Nature of Consciousness

Consciousness is a natural phenomenon [8]. The root of value is pain and pleasure [25-29]. Elementary (i.e., fundamental) consciousness is free-standing, without an observer [9,10].

Fundamental feeling is indivisible [9,10]. Physical particles and fields underly all phenomena [30-34]. The Standard Model+General Relativity, describing known particles and fields, are silent on the real phenomenon of consciousness, which means at least one of them needs again to be extended or augmented [30,35].

The standard way of correctly extending the standard to include "new" phenomena has been to introduce new fields and particles and thus also charges. This has been done multiple times and very successfully and is where our current physics Standard Model came from. Hence, we hypothesize a new field, the consciousness field. As with all fields, it corresponds to at least one new boson (force particle) which we call the "senton" (from sentience), and acts on particles that carry the consciousness ("sentonic") charge. And the field contains sentonic energy, as it must.

As a boson the senton will have an integer spin and obey Bose-Einstein statistics [30]. There is no requirement to introduce any new matter particles (fermions), just the new charge that known matter particles may carry.

Many specific candidates present themselves as the base sentonic actions in our world, the events that generate consciousness phenomena [9,10,30]. One or more of the creation, movement, rotation, spin

flip, spin alignment, absorption, and/or decay of a sentonic-charge-carrying particle or a senton, or any other behavior involving a transfer of sentonic energy, is when fundamental consciousness (feeling) happens and what it is.

Molecular combining, disassociating, and reconfiguring are quantum state changes that could include sentons as well as photons, as could atomic orbital changes. This throwing off and absorbing of sentons instead of just photons as they change quantum states suggests that a quantum wave function collapse could then correspond to a consciousness event [35]. It is particularly interesting that the exact meaning of the collapse of the wave function, and the exact nature of consciousness, are both at the same time unanswered questions.

The crucial interactions for consciousness might include:

- Photons changing the spin of sentonically-charged particles as they do with electrically charged particles.
- Sentons changing the spin of electrically charged particles.
- A senton decaying into a photon (though we speculate elsewhere that it is probably stable).
- Sentons propagating for long distances as consciousness radiation (and also participating in quantum teleportation).
- The collapse of probability waves, which may also exist for consciousness itself.
- A possible link with dark energy which, like consciousness, must be fundamental and yet not directly detectable. If they are the same, most of the energy of the universe is consciousness.
- An analog of gravity waves, propagating across the hidden dimensions of String Theory

Both more theoretical analysis and more experimental input are needed to winnow the field of possible mechanisms. Meanwhile, the collection as a whole provides us with a class of theories- a metatheory from which the specific case may later emerge. We call this metatheory the Sentonic Theory of Fundamental Consciousness (STFC). It starts with the realization that fundamental consciousness requires us to theorize a new field and proceeds through the resulting implications.

Base consciousness and qualia

Noting that consciousness is real, we are driven to our conclusions thus far by two entirely different paths that converge. On the one hand, philosophical study of the consciousness problem [9,16,36] leads us to the conclusion that consciousness ultimately must be something that happens on its own and is not an experience by another thing of the thing in question. When it happens, consciousness simply is. On the other hand, an examination of our current detailed physical model of the universe does not mention consciousness. Therefore, this model of reality is incomplete and must be extended. We extend it in the way that is simplest and most consistent with the existing (and very successful) model, which is by way of a new field [9].

Once this base feeling- negative and positive- is in place, more complicated things that people also call consciousness may be built therefrom (the "mental stack"). So, pain and pleasure are the base consciousness phenomena, but other familiar qualia are not fundamental conscious experiences [8,10]. If they were, there would have to be a fundamental force for "redness," and one for each in a tremendous plethora of other experiences in humans (and probably many animals and extraterrestrials, too). Our experience in physics to date tells us this is unlikely. Most qualia are elaborations, incorporating

information, at a higher level. This is a very important point. The assumption that typically mentioned qualia mined from introspection and the smallest consciousness bits of the universe are the same has led many astray.

Brain and consciousness

The brain is made of matter particles, most of which are electrically charged, and many of which are in motion. The brain has many electrical activities going on with special and unusual patterns, in close molecular quarters of special shapes [13,37], also [38-40].

Higher up, the brain is made of neurons [41,42], making it strikingly different from the other organs. There is one thing that makes neurons strikingly different from other cells: the production and transmission of neural spikes. As these spikes are reduced, such as by drugs, consciousness indeed fades.

The generation and transmission of neural spikes fundamentally involves the motion of electrically charged matter in the form of elemental ions.

Electric charge is extremely significant in the operation of the brain. In a transmitted spike, matter does not appear to move in any way that is particularly notable for matter, but the voltage waves do, as they are relayed from spot to spot along the matter. That leads us to believe that the connection in physics between the brain and consciousness boils down to the connection between movement of electric charges (which happen to be on ions) and consciousness, at least at the beginning of the process.

The simplest expectation is of a direct link without conversions in the middle. This would mean an electrically charged matter particle has the ability to move, or to be, a sentonically-charged particle.

And that implies there is either an innate link between the two forces, electromagnetic and sentonic, or a particle exists carrying both charges, which serves as the link. Thus far in our argument, this makes candidates of all of these: electron, quark, photon, and senton. A new kind of interaction between one or more of these four kinds of particles, or possibly simply the movement of one of them, corresponds directly to- is- the phenomena we experience as pain and pleasure, set in motion in our world by electromagnetic action.

In order for consciousness to have a useful effect, it must in turn affect the behavior of neurons. In other words, interaction must run in both directions (rather like the link between electricity and magnetism), from electromagnetic to sentonic and from sentonic to electromagnetic, either directly or indirectly.

Fusion in the field

We have seen the expectation of consciousness as a separate, fundamental action, which comes from both physics and philosophy starting points. The field called for by physics also harmoniously explains something very important seen in the philosophy and experience of mind.

Emotion adds and fuses. Both traits are important, defining characteristics for us. As you become more and more happy or distraught, undoubtedly caused by more intense firing of neurons and more of them doing so, the feeling becomes more intense, and it is singular. What you do not feel (or more properly, what is not happening in you), are more, separated independent feelings. The physics-level events, these freestanding dots of fire, are connected. The feeling is a large, fused whole [10].

This is exactly what happens in a physical field, be it sentonic or electromagnetism or gravity. Each point in space experiences the sum of force from all charges around it, and a continuous blob is the result.

That is the feeling within you (or within each of a few separate places in your brain). And that is how Fundamental consciousness becomes the emotional part of higher consciousness.

This also means that each neuron that affects the blob thereby affects all other neurons in contact with it, providing a bath of general how-things-are-going, a mechanism of great use to evolution in developing a complex, aware, and adaptive brain.

Consciousness Architecture Layer 1: Fundamental Consciousness

All phenomena have been seen to emerge from things that appear at the fundamental particle level through, maximally, the molecular scale [30,34].

Though we are not yet certain of the exact mechanism in Layer 1, we can characterize necessary key properties of it (and thus also speculate on actual mechanisms). This then will allow us to describe, without major impediment because it is supposed to be higher level, the nature of Layer 2.

Problems that will be faced in getting up to qualia (Layer 2) include [9,10]

1. Qualia are not all of the same character
2. Qualia are multitudinous
3. A feeling is fused into a whole, and more intense feeling is a stronger whole
4. At the bottom there are no Observers (in the mind sense), only observers (in the physics interactions sense).
5. There must be a way- a path- for our minds to have evolved

We now discuss Layer 1 from the standpoint of what it must be like in order to support an explainable Layer 2.

Layer 1's province is the true indivisible, smallest feeling that can occur in the universe [9,10]. Pursuing that leads us to some important (and non-traditional) conclusions.

First of all is the problem: for a feeling, who is feeling it? The process of drilling down to physics reveals that the question itself is essentially a meaningless assumption when we get to physical fundamentals rather than psychological concepts. When two electrons collide, which one is the observer?

Feeling in its simplest form does not happen to an observer, it simply happens, as a freestanding event. The whole notion of a subject to experience something is a much higher development (and a true emergent phenomenon).

The Observer as we know it comes late in the upward progression. The Observer amounts to one clot of feeling and computation taking as input another clot of computation (and often, feeling). The Observer is a swelling in the unified corpus of mind and is not even 100% separated from the (internally) observed or 100% the same thing from one moment to the next.

At the bottom there is no observer, at least not one that is somehow fundamentally distinct from the observed. Electrostatic interactions are not Observations, in a mental sense, they just happen. Fundamental feeling is the same way.

Secondly, our physics describes very well almost everything in the so-called “physical” world, from the tiny to the immense and everything in between, while not at all describing such things as pain or pleasure.

This tells us that

Postulate 3: Something basic is missing from, and must be added to, our physics, which is our description of reality [30].

The missing simplest physical feeling event we call Fundamental Consciousness. Individual occurrences we call “psybits”; each functions as a “microquale.”

Note that, apart from simply the fundamental physics nature of the feeling interaction, there is not necessarily anything especially quantum about this (but it may involve interactions that include “additional” dimensions). Because the fundamental (which is quantum) level of Nature extends up to the molecular scale, the exact process of feeling may conceivably occur at this scale (at the maximum) rather than the elementary particle scale. The Architecture, which is a framework or meta-solution, makes no demand that precludes that.

The quale garden

The first thing we should note as to the emergence of qualia from physical fundamental consciousness is whether there is any difference between the two. The answer is Yes, and this is terribly important to understanding of mind [8]. In fact, there is also a large difference in nature between the different qualia.

If a quale for Red really were fundamental in the universe, then there would have to be hundreds or more of qualia for all the other cited experiences- the taste of wine, the sound from a musical instrument and so on. Quite obviously this is literally unnatural. The grand “plan” in every case to date has been found to be a few simple fundamental elements, then placed in combination. This means the typical quale is actually a composite structure, that is, the “atoms” of feelings of the mind are not the “atoms” of feeling of the universe. So, we do need something smaller than a quale, or alternatively, some of the qualia are more elementary than others. At bottom will be the smallest experiences in the universe (the psybits).

The usually cited qualia include a cast that are deeply dissimilar, not peers.

Of special note are the differences between, for example, Red and Pain. First of all, there are a great many qualia (especially in principle) just as “elementary” as Red, which immediately suggests it is not a truly elementary feel. Second, there is nothing special about Red from the standpoint of the universe; again, it is just one arbitrary spot in a large field of characteristics (even though as it happens our nervous systems are specifically sensitive to it). Third and most saliently, Red has no intrinsic valence; Red is not intrinsically a painful thing or a bad thing or a good thing, it is just a factual condition.

Pain is entirely different in all three of these ways. There is pain and there is pleasure and there is nothing else in that family. Pain (or pleasure) is a very special occurrence in the universe, different from others. It has valence, and furthermore no factual content, only valence. The view that pain and Red are atomic siblings is false.

In fact, the only clearly elemental qualia are pain and pleasure, the “emotional” ones. It turns out this is a profound observation and an important clue. Pain and pleasure are must-haves in the base feeling repertoire; no others are, they are constructed. The key categories of qualia, then, are valent or not, and level of complexity.

If a quale is a feel, then the simplest quale is the simplest feel. The simplest feel contains nothing other than feeling. This means a simplest quale cannot be about something, for then you have the feeling plus the thing about, and so here we encounter a difference in structural levels (levels of complexity).

The connection of feeling to information flows is ultimately what makes ideas “register” [10]. The idea is cognitive, the registration is feeling.

Necessary qualities of fundamental consciousness

Qualia are the molecules of the mind, but not its quarks. And since qualia must be constructed of something similar (for workable emergence), this constructability becomes an essential feature of a successful architecture.

The answer is provided by the physical field, the mechanism that addresses another key problem, the fusion of feeling. This may be either an actual physical field, which we presume is the simplest explanation, or in principle another mechanism that is different but very similar in character.

Let us address the build-up from fundamental pain to quale-level (mind-level) pain. Note that by pain we mean “the painfulness of pain.” Pure pain is the dysphoric (“emotional”) aspect, the negative experience that is the end result of everything that causes pain.

Physical interactions are all the behavior of forces. In a force field, every spot is subjected to the influence of every other spot in the same field. What results is a three-dimensional (four, including time) intensity cloud of a specific compositional shape. With this fusion, the otherwise freestanding feels join into a larger cloud of feeling. This is why you feel one big pain instead of a thousand little ones.

Pain is special as a feel/quale because pain is pain, on a small scale or a larger scale. Pain flows up from Layer 1 to Layer 2 in a rather direct and simple fashion.

Hypotheses contained in the architecture and in STFC

- **STFC Hypothesis 1:** Fundamental feeling is freestanding and requires no separate feeler. At most there is a physical interaction between fundamental elements.
- **STFC Hypothesis 2:** There is a physical process that is fundamental feeling.
- **STFC Hypothesis 3:** The fundamental feelings are pain and pleasure.
- **STCF Hypothesis 4:** There exist pain and pleasure in minimal discrete bits independent of any brain, at the particle scale.

Re layer 2 we will discuss the informational qualia, which are very different. For example our Pain that is distinctly located also activates primary and secondary somatosensory cortex. But the same mechanism we have been discussing still underlies these pains. A field mechanism is needed in the consciousness architecture.

Layer 1: Getting Specific

Within the metatheory we have described are possible specific theories. Individual derivative theories may succeed in the lab or may fail, without necessarily disturbing the metatheory, STFC. In this section we assemble some specifics, subject to revision as more information arrives. The question of why we have not yet detected the underlying things of which we speak is addressed in [9].

Observations:

- **Possibility 1:** Fundamental feeling is another aspect of electromagnetism (or a combination of E-M and gravity) of which we are not aware.
- **Possibility 2:** Much of the fundamental interaction of feeling is in other dimensions. "Additional" dimensions arise often in theoretical physics.
- **Possibility 3:** Consciousness is something we do already know, but we don't realize it yet. Dark Energy?
- **Possibility 4:** An extension of the above is that all interactions are conscious and/or all energy is consciousness, but usually scattered and disorganized or differently organized.

We expect that a known or unknown particle's relative position, travel, acceleration, spin, spin change, precession and/or return, entanglement/disentanglement/wave function collapse, or other known or unknown fundamental particle physics event, is fundamental consciousness.

The most nominal model, regardless of effect- consciousness or other- is of a force charge, carrier particle having the charge, and mediator particle of the force. This leads to: "sentonic" charge, carried by potentially any particle, and mediated by the "senton"- the Sentonic Theory of Fundamental Consciousness. It is noted that any or all of these three model elements could be things we already know. Perhaps gravity moves planets on the large scale and also explains tiny tag clouds of feeling at the small scale, for example.

The mind is essentially a unified stage (or bottle) of thought and feeling, notwithstanding its ebbs, flows, fragmentation, and subconsciousness underpinnings. That stage is made of two things: the expanse and extent of neural hardware and the fields affected by its microscale movements ("two brains"). Topology does not create feeling (though it may create informational attention and self-referential "awareness," which is not the same as feeling aware or feeling an awareness of things). All the theories mentioned in this section rely, whether expressed or tacitly, on field qualities.

Carriers of sentonic charge and properties of the senton

To eventually suggest experimentally detectable properties of the particles and field we propose, we need to take the argument further. The senton is the boson that mediates the interaction between particles with sentonic charge. We do not have the data to prove the details of the senton. In [9] I speculate as to plausible, qualitative forecasts of its properties, congruent with existing laws. In summary, we propose that:

- The particles that carry the sentonic charge are most likely the electron, quark, photon, and/or senton.
- Predicted properties of the senton are spin 1, no color charge, no weak hypercharge or weak isospin, possibly sentonically-charged, and conceivably electrically charged.

Layer 1 summary

We conclude that there is a physical consciousness force, which we call the sentonic field, accounting for fundamental consciousness. Multiple pieces of evidence suggest this to us, and they are not all required; there is plenty of good reason to believe there is a sentonic field [9].

Evidentiary elements include: the tendency of Nature to repeat herself, using the same consistent patterns and methods for the

phenomena of our world; Occam's Razor- it is simpler to expect the same sort of mechanism at work than to presume a completely new one; in the human history of discovery, all phenomena have fallen to the same, increasingly generalized, scientific model; we can see that consciousness happens in the brain, and is almost certainly evoked by the brain, a physical object; to explain what supports yet smaller decompositions of experiencers and things being experienced, there must be a freestanding feeling.

It is probable that consciousness functions by the same rules (including mathematics) as all other phenomena that exist in Nature.

Part 2 continues to Layer 2.

Conflict of Interest

The author has no relationship presenting a conflict of interest for this article.

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