PAINTING



CONSCIOUSNESS

Steve Solodoff - March 2021

CONSCIOUSNESS – THE FIFTH DIMENSION

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PAINTING CONSCIOUSNESS

ART AS CONSIOUSNESS

A piece of art will contain numerous drawings of lines, colors, perspectives, organization and a host of other "tricks of the trade" to bring the viewer into the experience of the art piece itself. Nonetheless, the basic fundamental building blocks of any painting, sculpture, drawing, etc., is that of color or shades and geometric alignment (lines, circles, etc.). One can consider these as the source materials of the painting, the fundamental building blocks of the output.

The artist then represents the synthesis of that source material into a conceptual whole, into a perceptive output that a viewer can not only understand but can share their conceptions and perceptions of it with many others who also view that manipulated output. This being the case; there is a unity of experience supplied by the intelligent manipulation, by the artist, of the basic building blocks of reality (color, lines, circles, etc.).

The artist utilizes various tools in order to manipulate the viewer. Such tools as; perspective, color coordination, contrast, organization of the painting, etc. Apart from the tools she utilizes, she mostly utilizes her brain and all of its abilities on the artistic plane.

What we have laid out here mimics how consciousness works and how it relates to reality. For the time being, let us consider that there is something or other that makes up the fundamental building blocks of consciousness which is out there in the world, in reality, just as color and lines and circles were for the painting.

These building blocks of consciousness, when processed through the brain, along with many tools that the brain can use to bear and with that brain's cognitive abilities, will result in an output, which instead of being a painting or other artwork, is simply that person's conscious experience from the manipulation of the building blocks of consciousness that was utilized. It has become a painting to be viewed by only one viewer – the artist herself. Manipulation of a phenomenal source (qualia) using physical tools and processes (the brain) begets a phenomenal experience (consciousness).

So, in both scenarios there were three interrelated things that went along in the building up of an experiential output; realities fundamental building blocks (call this *Reality*), a manipulative and integrative element (the brain in both cases – from the artist herself) – call that the *Processor*, and third, the *Output* (a painting or a conscious experience).

THE BUILDING BLOCKS OF CONSCIOUSNESS - QUALIA

So, the three elements are: Reality linking to a Processor linking to an Output. Notice that all three of these can be thought of in any order; Output is a function of Reality being Processed into an Output, or;

Reality reflects an Output borne of Processing that Reality, or: Processing is a function of Reality processed into an Output. The point here is that they all must interact with each other in order to equate into the final output, or to reflect reality, or to be the grist for processing data. This is important because symmetry, connectedness and integration are the hallmarks of the unification of fundamentals and the hallmark of transformation from one state into another state that seems far removed from each other (like water is to ice).

Notice too that there has been a linking of the physical (Reality) to the Phenomenal (Experience). One might at first think that the Processor was that linking, however, the Processor is really just another physical device. So, somehow that which is purely physical became phenomenal.

We have a lot of data and experience concerning two of the three aspects of this. That is; Processing (how the brain works) and Consciousness (what experience "feels" like). Besides the definition of the process and the output, we really do not have much data of what reality consisted of – at least the reality that goes into forming the output – the fundamental source material. Although we seem to know a ton about reality, like what a rock looks like, what the sky looks like, what a rose will smell like, what hate feels like, etc. Within this construct, all those things are simply processed outputs and not the "reality" itself. An example of this might be; What does a table look like in reality? Is it this solid looking four-legged wooden structure? Or is it mostly space? Or is it millions of atoms squiggling about, etc.? The point is that what the building blocks of reality are, either on a case-by-case basis – object by object, or by some overall common building block that all objects share and our brains process in certain ways, remains unknown to us.

Since our brains process different objects differently, then either the building blocks are so all-encompassing that they can be integrated into hundreds of thousands of various objects by our brains and subsume those various objects. Or it would be the case that there is a slew of building blocks, enough to enable thousands of objects to be processed into different outputs, one by one. My opinion is that there is a functioning fundamental aspect that when combined with material objects allows them to emanate their quality, which then gets picked up by our brain processing equipment. Therefore, what is fundamental is this subsuming aspect that can combine with any and all objects to reflect their qualities. In this way there can be thousands of qualities out there based on one fundamental building block — a qualia based fundamental function. That same building block function, in the end, is what allows for the final linking of the physical (brain, neurons, etc.) with the phenomenal experience of consciousness.

That which gives off the quality of an object is called qualia. But what I am contending here is that the various qualia are constructed from a more fundamental thing, an all-encompassing function that combines with objects to create individual qualia (as well as inner qualia – see discussion later in this on inner qualia). I would call this "universal qualia" which subsumes individualized qualia.

THE PHYSICAL VS. THE PHENOMENAL

Despite this description of how basic material (objects) can end up in conscious experience, it still leaves off an important part of the process; the hard problem, which is; How can something physical (an object) end up creating something that is phenomenal (the experience)? Since it is qualia that is the

base material of this transformation, it bears looking into the nature of qualia – is it physical or phenomenal?

It seems to partake of both physical and phenomenal characteristics. In the sense that it combines with a physical object and "gives off" that object's identity or quality, this "giving off" or emanating aspect of qualia is a physical one, which being physical can be picked up by our physical sensory and cognitive devices. On the other hand, the experiencing of that emanation, that quality, within our consciousness is a phenomenal one. So, qualia are a switch that can transform the physical into a phenomenal experience precisely because it has aspects of both. This makes perfect sense since there must be a linkage, and that linkage, by definition, must partake of both characteristics in order to link one aspect (physicality) to another (phenomenality).

One cannot look for consciousness purely inside the brain, just as one cannot look for consciousness purely within qualia. The phenomenal experience is once removed from the external reality. What the objects actually are in reality is not something that we organically know. All we can know is what they give off in the form of qualia, which is once removed from the what-it-is-ness of the object. In that sense, our consciousness is an interpretation of the world, and it is this interpretation that evolutionarily was needed for us to navigate the world which was out there.

Another aspect to take note of is that consciousness cannot exist physically, it must be a phenomenal experience. This is because if the output from our processing of qualia was purely a physical one then that output itself would be its final characteristic and no ancillary phenomenal experience could manifest. Without a linkage to a phenomenal type of output there can be no interpretive experiential output, only another reflection or reinterpretation of the previous physical make-up. The following would be what happens upon reception in our brain – there would be a physical transformation from sensory reception – but no phenomenal consciousness could be experienced. It is only when this physical sensory *reformation* of the input (physically) is transformed into a phenomenal output (the *recognition* of the qualia or quality) that a true conscious experience occurs.

So, the path taken would be; A physical object transformed into a physio-phenomenal quale picked up by a physical processor (the brain) and output to a physio-phenomenal receptor (an inner phenomenal aspect of the qualia that was previously picked-up and now exists within the brain).

PHENOMENAL RECEPTION

It thus bears looking into what is this physio-phenomenal receptor? Is it a section of the brain? If so where as well as how does it manifest? Being phenomenal, it need not have a specific physical location, yet there is a reception that occurs, and if so, what is the nature of that reception/receptor? Inspecting this further, the following characteristics would exist; 1) It happens somewhere in our brain, somehow, 2) It is not physical but is phenomenal by nature, 3) The brain must be able to encompass phenomenal reactions, 4) Qualia is involved, 5) A transformation must occur and 6) The final output/reception must have a phenomenal characteristic to it.

 It happens somewhere within our brain - Consciousness and experience must either be within and part of the brain's make-up or, conversely, would be external to the brain. Since consciousness makes up the major, if not the entire self, it would not be external, unless the case was to be made that we are receiving within ourselves the experiential output external to ourselves – a false tautology since it is of the self where we receive it, the self being internal. External reception would not be the self – it would be universal and there would be no inner individuality of experience - within each person individually and by itself.

Internally it could not be other than the brain, like the heart or an arm, etc. For even if this were somehow the case, all feelings from our external organs and appendages are sensorily located within the brain anyway. One can almost actually feel that their consciousness is in the brain.

The brain architecture consists, when you come down to it, of two types of things; neurons and processes. Even though different functions appear in various parts of the brain, those functions are, at base – processes. It seems pretty obvious a prior that the neurons, by themselves, would not be, individually, a seat of minute experience stemming from the stimulus that they processed. An electrical-chemical stimulation of a neuron, once it passes through that neuron, has no apparatus with which to experience that input, or even to comprehend or be aware, by itself, of the output. Even if somehow, it did, there would be the need for a process to assemble all the different pieces of differentiated single outputs to make an observational whole. Therefore, by elimination, consciousness, or the seat thereof, must lie within a process or processes.

2) <u>It is not physical but is phenomenal by nature</u> – Here again, as was brought out above, if it was purely a physical reception to a physical output, then there would just simply be a transformation from one physical construct to another, with no experiential aspect to it. Knowing, awareness, consciousness must be phenomenal if for no other reason than it is the transformation of an output which is a reflection or interpretation of a phenomenal input (a quale), and that quale, combined with cognition, reflects purely its phenomenal aspect (as opposed to its physical aspect that it reflected when originally combined with an object instead of directly with cognition).

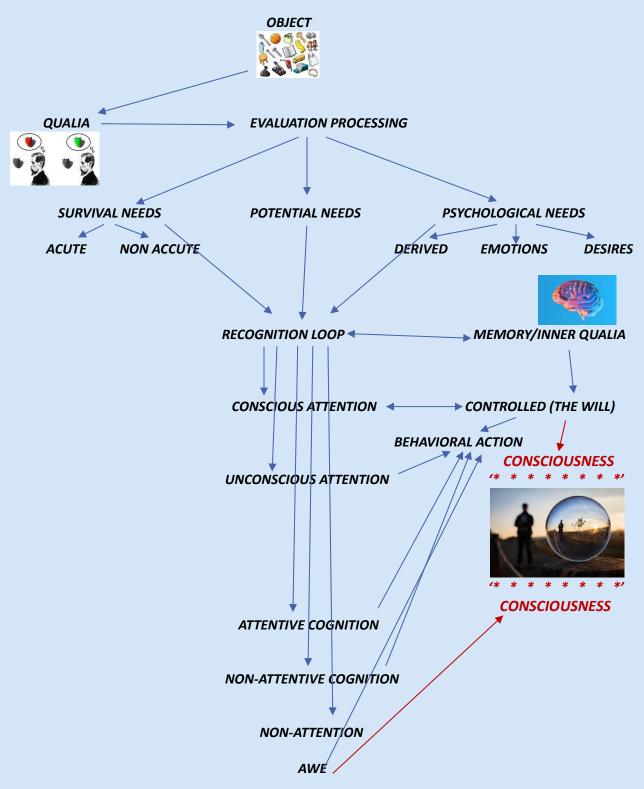
This is because the physical aspect of qualia (remember qualia has both physical and phenomenal aspects to it) only is given off in conjunction with an object. Once the transformation of the physical qualia into a physical processor (the brain) happens, the qualitative (qualia-tative) aspect of the output has combined with a redefinition of the physical object and is no longer a physical element but rather is a phenomenal output received by a specific process (see #1 above) within the brain. In effect, qualia, the physical emanation from an object, becomes a quality, which is phenomenal by nature.

3) The brain must be able to encompass phenomenal reactions—Whatever the process is that receives and experiences the qualia, that process or processes, must be able to either convert input from the neurons or other processes into a phenomenal construct, or can itself receive input in only a phenomenal form, in which case there would have to be a conversion process which occurs anyway. I contend that this conversion process is what I refer to as a "recognition loop" wherein qualia is recognized and then the brain's own version of that qualia within its memory, relays an "inner phenomenally based qualia" over to a receptive process (Attention and the Will).

- 4) **Qualia is involved** This is self-evident since the actual source of the information was the emanation of the quale from a once removed real object. Therefore, qualia are involved being the actual sensory reconversion itself.
- 5) A transformation must occur Again, this is self-evident and was covered in #3 above where I talk about a conversion process. In actuality two transformations must occur; First the transforming of the physical aspect of the quale as it emanates from the object into our sensory receptive apparatuses transforming from one aspect (qualia) to another aspect (sensory impulse), and, second the transformation discussed in #3 above where a physical sensorial aspect transforms into a phenomenal reception, a phenomenal output (called a recognition loop as above in #3).

THE ROAD TO CONSCIOUSNESS - The full path from reality to consciousness is the following

THE ROAD TO CONSCIOUSNESS



Analysis of the chart follows:

Object – These are the material objects of reality. Though shown here as external, of the world or of physical objects, an object can include internal states such as sadness, fear, joy, etc. They are objects in the sense that they have a quale inherent to them, as well as resulting in a consciousness about them. These objects have qualia connected and interrelated with themselves.

Qualia – This is the emanation of the individual quality of the object, whether that is a color, a characteristic shape, a feeling or any one of many aspects of the object, given off from and inherent in that object. Qualia itself is a separate and fundamental building block of reality and is subsumed by energy (the monadic building block of everything in the universe). It is one of the three distributions or dimensions of energy upon energy's manifestation into the universe, those three are; Spacetime, Materiality and Qualia (or Universal Consciousness) – see discussion later in this concerning energy and its dimensions. Also, see the chart on The Flow of Energy. The reception of qualia results in Evaluation Processing.

Evaluation Processing – This is the process whereby the objects of reality are processed from qualia and then result in the output of either consciousness or simple behavioral action. The evaluation is triggered and based on specific needs, it is need oriented, thus based on an evolutionary requirement, which is what sets off the evaluation process. These needs are; Psychological needs, Survival needs and Potential needs.

Survival Needs – These are the basic human needs that are needed in order to survive. Such needs as hunger, sex, shelter, safety, warmth, etc. are included here. There are two types of survival needs: Acute Needs – basic survival-oriented needs, and Non-acute needs – such as communal living, agriculture, curiosity, and other subtle but important survival needs.

Psychological Needs – This category of needs encompasses a host and a variety of inner needs. Everything from love, fear, happiness, loneliness to anxiety, longing, grieving and many, many other inner needs. The psychological needs include; Emotional Needs, Desired Needs and Derived Needs (like sadness which might be either an emotional need or a derived need which was derived from a loved one's death).

Potential Needs – This is a catch-all category that encompasses anticipatory needs that may or may not be out there which would prove to be the nature of the above two categories. Movement is a good example. Movement is a need because something that moves may or may not be a threat (survival need) and thus requires evaluation. Potential needs are the most prevalent triggers of the requirements of Attention, in all its forms.

These three needs are processed through a Recognition Loop.

Recognition Loop – This is the process whereby the original qualia, which triggered a certain need, is looped through a process where those qualia are matched to **memory's** inner representation of that quale (<u>an inner quale</u>) and thereby not only is "recognized", but more importantly is given off as **an** inner phenomenal quale that matches the outer quale, and is received, through controlled attention,

by the Will, resulting in phenomenal consciousness. It is also the conversion of something physical into something phenomenal. Instinctively, we intuit that some sort of loop is required and operative in order to transform raw data (qualia) into conscious experience. It is like lining up two mirrors, where the reflections keep repeating themselves, and at some point, result in an awareness of the original object reflected, but which is now removed and transformed.

It is not the Recognition Loop alone that does this transformation, but it is a process that will be able to beckon up an inner quale and, through various forms of attention, process it into either behavioral action or into consciousness. The recognition itself also has a quale of its own which has an individual characteristic to itself that matches the outer received quale, that characteristic being the impetus for further processing through various forms of attention.

Memory/Inner Quale – Whenever we receive sensory stimulus from an outer quale, we store this <u>likeness</u> into our memory banks. Therefore, in the future if that same quale (or similar quale) is picked-up or received by us, it will trigger the Recognition Loop (above). The inner qualia triggers Controlled Attention otherwise known as the Will, which will be the bridge to Consciousness (see Will below).

* Also see The Author's Postscript on page 137 for a detailed explanation of this.

Attention – There are various types of attention. Depending upon which type of attention is triggered (through recognition from a need which followed the qualia from external objects), different types of attention develop and result in different effects from those causes. These different types of Attention include; Conscious Attention, Unconscious Attention, Attentive Cognition, Non-Attentive Cognition, Non-Attention and Awe.

Conscious Attention/The Will - Attention is a separate physical, cognitive process (as opposed to a phenomenal one). Conscious Attention is need based, it is triggered by Recognition, often results in behavioral action and results in consciousness through the functionality of the Will. In fact, Conscious Attention is just another label for the Will – the Will is always using only Conscious (Controlled) Attention. An example of this would be the quality of color – an inner phenomenal color quale triggers recognition which results in Conscious Attention to that quale, and from that it results in the conscious experience of color. Our entire consciousness is a result of Conscious (Controlled) Attention.

Unconscious Attention – Unconscious Attention is also need based, it is triggered by Recognition, results in behavioral action but does not result in consciousness and has nothing to do with the Will. A good example of this would be automatic driving, where you are not aware of what you're doing consciously but nonetheless you turn the wheel with road changes. Another example would be background noise that you are not aware of when you are concentrating on something.

Attentive Cognition – Is need based, it is triggered by Recognition, results in action and is not conscious. It does involve though cognitive processes. An example would be solving difficult math problems where your neuronal paths are triggered to computationally come up with solutions that may invoke abstract thinking or other higher level cognitive processes. It does not result in consciousness; it is just a computational process, although you may well react consciously to the solution, but that has become conscious attention at that point.

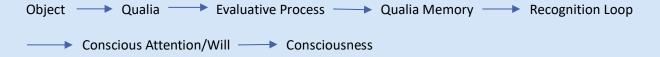
Non-Attentive Cognition – Is need based, it is triggered by Recognition, results in an action and has no associated consciousness. An example would be solving simple math problems like 2 + 2 = 4. It is cognitive, but requires no attention – it is automatic.

Non-Attention – Non-Attention is not need based, is not triggered by Recognition, has no conscious element to it but can result in an action. Example: the filtering out of background noise. The "action" here is the filtering process, not a behavioral action, but an action, nonetheless.

Awe – Awe results when something cannot be recognized cognitively (no Recognition) from our memory banks. It can or cannot be based on need, but usually is (like fear), it can or cannot result in action, it always is conscious, but in a singular "awe-like" way, it does not utilize a cognitive process since there is no memory path for it to pull from. An example might be coming across, for the first time, a tornado (though it can be from benign sources also) – if there is no memory to recognize, awe will result to some degree. * Also – See Authors Postscript for more on Awe (page 37).

The Road to Consciousness – From all the above concepts, the full path to consciousness would be the following.

From a material object, a physio-phenomenal Qualia is emanated, then through sensory perception to an Evaluative Process which through the trigger of various types of Needs is Recognized by the inner phenomenal quale-like Memories and, if the type of attention triggered is that of Conscious Attention/Will, the Qualia from that memory is passed on as a phenomenal quale into Consciousness within the brain.



The following excerpt is from "The Mirror of Consciousness", pages 100 thru 106, and gives a more thorough description of these subjects:

<u>ATTENTION</u>

Attention differs from consciousness in that consciousness involves "knowing" which is tied to the <u>experience</u> of knowing, while attention involves recognizing but not self-conscious knowing. The phrase "conscious attention" is simply combining, in one concept, two separate things – that of recognizing and that of knowing or experience. There are three areas of attention; 1) Internally stimulated attention, 2) Externally stimulated attention, and 3) Conscious Attention which can subsume either one of those.

To better come to an understanding of what attention is, it might be best to start with what it isn't. We are constantly barraged by our external and internal stimuli without paying attention to them. Whether that is a background hum of sound, thoughts that do not cause any reaction to them but happen inside us nonetheless, portions of a visual scene that do not involve our consciousness, visual stimuli that is recorded by us but no cognition occurs from it (it is simply recorded and likely not stored – though it could be stored without our knowing of it).

So, there are many cases of stimuli that do not involve our attention. Notice that some of this could be received consciously yet we do not process it cognitively, we just experience it – like Awe.

Generally, people speak of non-attention (and for that matter, attention) using the term awareness to connotate that we "know" about it. This I believe leads to a mistake due to the following; if we are aware of something then we have consciousness about it and the description of what has happened in that case lies within the subject of what consciousness is – you can be consciously aware, but still, this does not answer the question what is consciousness? We tend to exchange the terms attention and awareness equally and, in that case, we are ascribing something extra to attention (that being awareness), an effect from the action of attention. Again, it is my belief that the effect from attention is one of consciousness – one I refer to as Conscious Recognition. I contend that this is something separate from attention, which is only the cause, resulting in consciousness being the effect.

So, here is another example of what attention is not, it is not what we refer to as awareness in the conscious sense. If that were the case then attention would just be another word for consciousness and I contend that it is not, that attention is something else.

So, what does that leave us as to what consciousness is? The answer to that lies in the answer to the question; what is the difference between a background hum of sound that we are not conscious of – non attention (notice I didn't use the term awareness) and one that we are conscious of – attention based? It seems obvious to me that the element is consciousness. I would therefore put into the definition that some types of attention involve consciousness at a certain level.

That is true on the over-arching level that we mean when we say we are "paying" attention to something. However, there are different levels of attention. For example; there is a big difference between not hearing a background hum and not being conscious of the traffic scene in front of you while driving. When you are driving there are all sorts of cognitive processes and reactions that are going on that you are not conscious of but are attending to with some degree, or some type of attention. But with a background sound you may very well not be attentive at any level to it – it actually is filtered out of your cognitive process. I would call the traffic example one of unconscious attention, while the sound one as non-attention altogether.

LEVELS OF ATTENTION

This is one example of why attention is not the same thing as consciousness. Therefore, if there truly are levels of attention, then there is some level that is conjoined with consciousness. That level is what I refer to as Recognition (I label it Conscious Recognition). But what of attention then? If there are levels that are unconscious then attention is a separate <u>physical</u>, cognitive process (as opposed to a phenomenal one).

Now, cognition is constantly happening below, or outside of our conscious knowing. In dreams, in driving, in calculating automatically known elements (like simple math or playing a simple note within a riff of notes, etc.). So, just the act of cognition is not necessarily the act of attention because it may escape any reactive cause and effect element. This then speaks of attention having action as an integral, effective part of it.

So far, we have the following categorizations:

Conscious Attention (involves cognitive conscious recognition). Unconscious Attention (involves cognition). Unattended Cognition.

That leaves one last category, which is; Attended Cognition. That is different than Unconscious Attention. With Unconscious Attention you might not "know" about the stimuli occurring but there is a stimulus there. With an Attended Cognition (or cognition with attention) there is a logical neuronal process occurring internally. For example; $2 \text{ plus } 2 \text{ involves cognition without attention} - \text{it is automatically processed cognitively, there is no thinking, but } X + 7 - Y + 2 \text{ will have a cognitive process occurring that has attention as part of it, but it might well not involve any consciousness in the knowing or experiencing sense of consciousness (except maybe when an answer is solved for, that "Bing" that occurs when you solve something may well be consciousness (a quale), but the path toward the solution did not involve consciousness, it involved Attended Cognition).$

NEED CAUSATION

It is this last category, Attended Cognition, that best exemplifies what attention is. It is a cognitive reaction to a certain stimulus (in that case the stimulus was an internal procedure in order to solve a math problem). This means that within our neuronal schemata there is a function that occurs which reacts to a stimulus (internal or external) by prioritizing and carrying out that process which addresses whatever <u>need</u> has arisen from that stimulus. It is therefore, triggered by a "need". That need is the effect portion of the causation instigated stimulus. The effect isn't the action, the effect is the need. The need causes a reaction - attention (the effect that is a <u>need</u> becomes a <u>cause</u> to an action - attention).

So, attention involves an action, the addressing cognitively of a need. Because it is need-based, then one can say that attention is a reaction to a need, an effect of a need (either externally triggered or internally triggered). Applying that definition to the concept of Conscious Attention, it would be that a need has caused a cognitive process, which has reacted to that need, and that "attentive effect" from the need is recognized consciously. Unconscious Attention would be where a stimulus occurs but there is no need inherent within that stimulus and the cognitive process that occurs is simply one of non-conscious recognition and/or recording with attention exercised unconsciously. While Attended Cognition would be the same with no consciousness occurring, but a reactive process of cognition occurring as an effect which addresses a need (2 + 2).

To recap:

Conscious Attention – Need: Yes Consciousness: Yes Recognition: Yes

Cognitive action: Yes Example: The quality of color

Unconscious Attention - Need: Yes Consciousness: No Recognition: Yes

Cognitive action: Yes Example: Automatic driving situations

Cognition without Attention - Need: No Consciousness: No Recognition: Yes

Cognitive action: Yes Example: Very simple math (2 + 2)

Attentive Cognition - Need: Yes Consciousness: No Recognition: Yes

Cognitive action: Yes Example: Difficult math

Non-Attention - Need: No Consciousness: Maybe* Recognition: No

Cognitive action: Yes Example: Background sound filtered out

'* Maybe because at times background noise is not filtered

Based on these characteristics of the various types of attention, we can summarize the common traits of attention as; Attention always involves cognition, always involves recognition (either consciously or unconsciously), does not always involve consciousness and generally is caused by a need (except with simple math, or background noise, etc.).

So, attention is an effect of a need (internally caused or externally caused), requires cognition but does not always involve consciousness. It is thus a physical thing and not phenomenal (like consciousness) – it is a specific function of cognition. It seems also obvious that the stronger the need, the more attention is utilized.

How it works is that our cognitive process prioritizes itself toward addressing the need object (it focuses itself on it), marginalizing thoughts that do not pertain to that need and it recognizes all of the reactive effects concerning that need. Attention is a cognitive effect of an internal or external need-based cause. Notice therefore, that attention is not something you can necessarily control. Later on, in a more detailed discussion of the Will, the point will be made that Controlled Attention is the same as the Will. Here though, the "control" is in the hands of the need – of the object or construct.

For example: You're at a baseball game and a fly ball is hit that you are interested in due to an inner excitement surrounding fly balls and an inner interest in the game that is going on. Interest in excitement is the basis of the need, the fly ball is the object of the need – the stimulus. Other thoughts you were having subside and the main cognitive systems are reactive to the fly ball through recognition. You are conscious of the various aspects of the situation through Conscious Recognition of various key aspects (the fielder running to catch it, the trajectory, maybe the wind, etc. – each of those aspects entails a conscious experience). You are Unconsciously Attentive to other non-important aspects in the scene – like the first baseman standing there not involved – but your visual cortex records him. You have filtered out much of what is happening around you (the peanut vendor 10 rows back, the airplane above, etc.) and you are not attending at all to them. Your utilizing Attentive Cognition as you try to solve whether or not the ball will be caught. You may possibly be Unconsciously Attentive to the base runner. There is cognition without attention as it is automatically known that if the ball hits the mitt it will stop. You have, in this example, used all the forms of attention that are available or correlated to the various situations and aspects of the fly ball.

There is one last concept that should be mentioned in relation to attention and that is; Suspended Attention. There are stimuluses that cause our, otherwise to be triggered attention, to instead be suspended. When this happens, we call it Awe. Awe is a result of the cognitive process having no comparative (memory) agent with which to be able to continue to process - and then all cognitive process is suspended. In that case we are consciously and directly recognizing pure experience or direct translation of qualia without any recognition – the experience happens to us but we do not apply cognition or recognition to it – we just experience it. * See Author's Postscript on page 37 for a more detailed explanation of Awe and how it effects consciousness.

In the fly ball example – let's say you here a thundering crack of the bat beyond belief that has sent the ball further away than you can imagine. Your reaction will be to suspend attention and simply experience the awe of it.

TYPES OF NEEDS

The vast majority of our attention is based on survival-oriented needs, and an argument can even be made that all of our needs are of a survival-based causation. We are programmed or hard wired to have to protect ourselves from the environment, from the external world. Fear is ofttimes the trigger within us that danger lurks, but not always. Everything from the external, for survival reasons, must be monitored by our cognitive process because it could possibly pose a danger. Therefore, anything recognized (cognizant recording and recognition) could potentially be threatening. That automatically calls cognitively for an evaluation of whether it is dangerous or potentially dangerous.

That need for an evaluation to protect is the basis of everything we recognize in the external world – and therefore, all those external recognitions are based on needs, and needs cause attention. In fact, a good case could be made that consciousness itself is our evolved ability to recognize needs for survival purposes. In this sense, we have two types of objects we process; dangerous ones and non-dangerous ones, but all of them call for attention of some sort. Except for cases where our cognitive process has automatically filtered out stimulus before recognition (through evaluation), like repetitive, mundane things - everything else has some form of attention associated with it and brought to bear at some level.

I would place needs into three types of categories; Potential needs, Psychological needs and Survival needs. By far the largest category, and the one we are constantly attending to, are Potential needs. These are the vast majority of external objects that pose no danger to us and therefore are benign as regards needs. We evaluate everything that is external that we notice (or recognize) and 99.99% of these are benign. They are the everywhere objects of our sense fields – all the visual, auditory, sense-oriented objects that we come across every minute. We unconsciously evaluate these through an automatic cognitive process (it is a process based on exception, so most recognitions proceed on by without much attention, we have filtered out evaluation due to the lack of a need, which is due to the repetitive, mundane aspect of it. Yet because of that process we fleetingly attend to it, though mostly unconsciously. Thus, the majority of what we record and see is made up of these benign, evaluative objects. But they were still need oriented in that we needed to evaluate them. 99.99% of what we do is made up of these unconscious evaluative, sensory needs that entail the lowest levels of attention categorized as unconscious attention.

The next largest category of needs is that of Psychological needs. These are needs that arise, akin to objects, but from an inner cognitive process. There are three types that I would categorize; 1) Derived, 2) Emotions, and 3) Desires. The largest of these sub-categories is what I am calling Derived Psychological needs. These are thought based logical constructs that possess a similarity to the type of need that an external object has, which requires evaluation.

That similarity (of derived psychological needs) is one that has the characteristics that an external need possesses which has the capacity, or configuration, to trigger a reaction (that of attention). While the external version of this possessed an actual need of some sort, thus triggering attention as an effect of it,

these psychological derived objects may or may not possess any actual need (but they still are evaluated through the same cognitive evaluation process that potential external needs go through).

So, a thought about eating later may have no need attached to it (the need would come later – it is just a logical thought that arose or was derived from our unconscious thought processes). But a reaction to needing to answer a phone call would bring about the logical thought of answering it and would have a similar need characteristic as an external need such as a door about to hit your finger. They both would cause attention, and in these two cases, behavioral action. These examples (phone and future hunger) are derived from logical thought processes and are considered derived, because although they have the same construct as external objects, they were derived from thought or psychological processes. They can entail either Conscious Attention or Unconscious Attention.

The next Psychological category would be Emotions. These may also be derived from logical thought, or they may be caused by an external source (like seeing a picture of someone). All of the various types of emotions will cause attention and will usually cause a reaction either behaviorally or a further thought and emotion. They also can be considered either Conscious Attention or Unconscious Attention.

The third type of Psychological need, though it seems like it is externally caused, is Desires. This is often externally caused because the external source causes thought processes which in turn becomes a psychological need, that further causes attention and often behavioral action. However, it doesn't have to be externally caused, it often, maybe more often, comes from a thought process caused all by itself either from memory or from a thought sequence or from a survival-based thought (like sex).

The last type of need, in terms of quantity of occurrence, are Survival- based needs, like hunger, fear, sex, etc. – these pretty obviously cause attention and often behavioral action though they can be unconscious.

All of these different types of needs cause attention to manifest within the different types of attention types enumerated above (Conscious Attention, Unconscious Attention, Attentive Cognition, Non-Attentive Cognition or Awe) – depending on the level of need and type of need that manifested.

Notice that the largest quantity of needs were the benign ones of our everyday world. Many of these involve our consciousness. So, we are conscious of a vast majority of benign needs that come our way through recognition. Our world is mostly a consciously attentive place made up of potential needs that are for the most part not needs at all! Most of what we are self-conscious about comes about through our evaluative process.

RECOGNITION

The above concepts integrate recognition as the precipitous part of it. So, a deeper dive into what is recognition is needed, as well as what I mean by Conscious Recognition. Recognition is intimately tied to memory. It is a cognitively based process that matches constructs to our long-term memory – specifically to an inner quale (see discussion of inner qualia later in this). If we have no memory to match to, no inner qualia, then it won't be recognized. It might be categorized into memory but that entails a more detailed discussion of how memory operates.

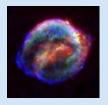
There are two types of recognition; Cognitive Recognition and Conscious Recognition. Cognitive Recognition is unconscious and causes an effect both of attention and often behaviorally (action oriented). Though in many circumstances it just causes a reinforcement of memory (memory mainly involves cognitive but non-conscious recognition). Conscious Recognition on the other hand involves consciousness and therefore experience. When we have Conscious Recognition, we experience what we recognize (caused either internally or externally from qualia). Conscious Recognition often involves Controlled Attention, otherwise known as the Will. But it can occur automatically from a need-caused, Non-Controlled Attention, and therefore without the use of the Will – like the crack of a bat on a fly ball - Awe.

Recognition is similar in certain ways as attention in that it is caused by needs (internally psychological and external). However, it does not necessarily have to be evaluated before it manifests. It is a cognitive, physical process. Unlike attention's allegiance to the evaluative process, recognition owes its trigger to a matching process dealing with memory and inner qualia. When a match occurs, it triggers recognition. What the nature of that recognition is, is the reinforcement of a memory and that reinforcement triggers a conscious or an unconscious reaction which has been caused by the memory that was reinforced. It is a fairly exact duplicate of the original memory. In effect, we have our own internal sets of qualia stored as part of specific memories. It is through that recognition process that these effects occur cognitively within us. This bears repeating; Recognition is triggered when a match occurs in our memory, and what is triggered is a duplicate quale of the original quale that originally categorized itself into memory.

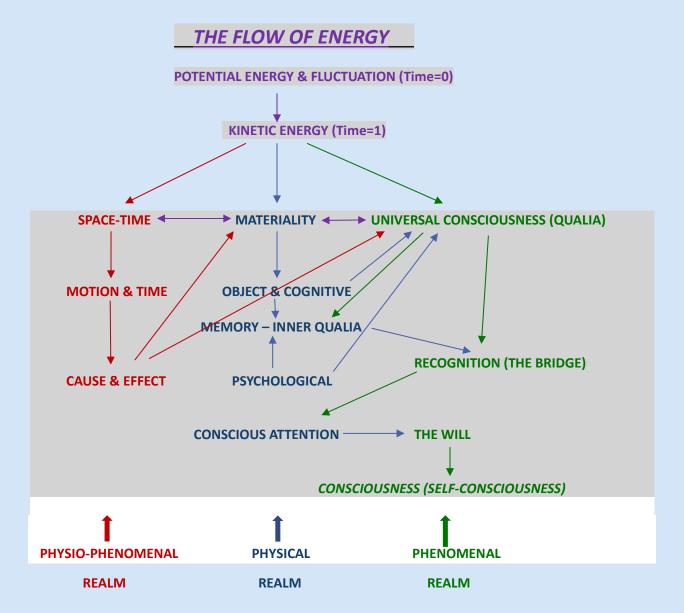
When that type of stimulus (or quale) is attended to with our Will, then it becomes Conscious Recognition as opposed to Unconscious Recognition. There still is a process that goes through memory, only in that case, the reaction includes consciousness. This always necessitates a quale as the cause, either an external quale or an internal one (as discussed above). So Conscious Recognition involves both physical and phenomenal processes in order to occur (the "hard problem" of David Chalmers). It is the recognition process that determines what type of attention manifests (Conscious, Unconscious, Attended or Non-attended).

End of Excerpt

THE FLOW OF ENERGY (Next Page)



The following chart depicts the Flow of Energy and Consciousness:



Analysis of the chart follows:

POTENTIAL ENERGY – This is probably the most important concept to understand and accept and can easily be brought out by a simple example. A spring that is compressed will result in kinetic energy when it is released. This is easily understandable. However, when it is compressed, it also contains energy, called potential energy. A good proof of this is that a compressed spring will weigh more than the same spring unfurled.

So potential energy is a real thing, a real energy which exists. Yet, it cannot do work by itself (work done being one measure of energy). It must transform, through some process (unfurling in the case of the spring) into kinetic energy, before it can be measured. So, it is proper to say that potential energy has the characteristic of nothingness. It is not yet kinetic energy (energy in the world), cannot be measured (without resorting to comparing it to kinetic or active energy), has no characteristics (other than nothingness – which really isn't a characteristic because by definition it is nothing). But, this "nothing" results in a true force or energy.

This not only is a mystery, but fantastically is the progeniture of everything in the universe through its potential to cause energy to manifest. It is the first cause in spite of it consisting of nothingness. The potential itself is a cause of kinetic energy – the effect of a transformation. It is what existed at Time-0, before the big bang. The big bang can be thought of as the spring unfurling.

THE FLUCTUATION – The transformation, from potential to actual energy, is an inevitable but accidental change. That change is born because of the *uncertainty principle*. This principle states that zero-point energy (the nothingness) cannot completely exist, but must fluctuate between location and time (space and time). The Uncertainty Principle says that the more accurate you can fix a location in space then the less accurate a specific time of occurrence can be fixed. And vice versa; the more accurate you can fix the time of something occurring then the less accurate you can fix its location. It therefore will fluctuate between these two aspects of space and time. That fluctuation is what sets off the transformation from potential energy to kinetic energy and this manifestation of kinetic energy occurs at Time-1, 10⁻⁴⁵ of a second after Time-0 (one Planck unit of time). What happens between Time-0 and 10⁻⁴⁵ of a second is the fluctuation itself. Note that the fluctuation is not a discrete unit of time, but rather occurs continuously between T-0 and T-1. This therefore accounts for what happens when something less than a Planck unit exists. Time and Space are therefore not discrete at their most fundamental level.

This is true because below the level of Planck time and space, what exists are unending scores of fluctuations, one of which will become responsible for the transforming of potential energy into kinetic energy. One would at first blush think that still, at the smallest point below the Planck unit, there must be a quantum leap to nothingness, thus making time and space discrete at that point. However, the series of possible fluctuations that exist below the Planck level does not stop right before nothingness (potential energy) but continues into negative territory – which tends to highlight the definition of fluctuation. That is, the fluctuation can happen positively or negatively within potential energy, and therefore there is no "discrete point" or final abutment against some beginning.

KINETIC ENERGY – Kinetic energy comes into being at T-1, as a result of the fluctuation of potential energy combined with gravity. It is the active state of energy, and as such, continues, in a sense, the

conservation of energy, but in this case – potential energy is what is conserved. Kinetic energy, though active, and thus different than the nothingness of potential energy, is still a continuation of energy, like water is to ice. They are not separate as they stem from the same fundamental monadic source - energy itself, just as water and ice both stem from H_2O . It is simply a transformation from one form to the other. Both energies carry the seeds of the 3 dimensions of Spacetime, Mass (or Materiality) and Qualia (or Universal Consciousness).

THE THREE DIMENSIONS

As mentioned above, within the fluctuation of potential energy are the seeds of the 3 dimensions; Spacetime, Mass (or Materiality) and Qualia (or Universal Consciousness).

- SPACE & TIME At the site of the fluctuation(s) there must be a location where potential energy fluctuates. That <u>location</u> is what constitutes Space. Likewise, at the site of the fluctuation(s) there must be a moment of time when potential energy fluctuates. That <u>moment</u> is what constitutes Time. When kinetic energy finally is released, the energy is distributed in the forms of Space & Time which continues to exist (or Spacetime) wherever and whenever energy manifests.
- MASS (MATERIALITY) Energy is made up of no mass and of infinite mass, both of which nothing can have any affect upon. It is both because energy itself cycles. From one point in the cycle of energy (when it's in its potential energy form), there is no mass. From the opposite point (in a black hole) is infinite mass. In between these two points, mass that can be affected is present (matter). * See spin theory in my book, "Mirrors" for a more complete discussion.

Note that it is precisely black holes that account for the recycling of energy to its no mass state of – potential energy.

• QUALIA (UNIVERSAL CONSCIOUSNESS) – As these dimensions manifest, they do so with separate identities, with separate characteristics, separate qualities. These "qualities" are what causes qualia to exist as a 3rd dimension. Qualia can be thought of as akin to information. The sum total of all information is called Universal Consciousness. This is not a thinking, brain-like thing, but is rather all the relevant data that supports all of what is an overall set of "knowing". It is total phenomenal datum. Universal Consciousness *allows* for the awareness of datum.

All three dimensions share cause and effect with one another. That is; they each are both causes and effects of each other. Thus, spacetime is a cause of materiality and can also be an effect of materiality. Qualia is a cause of spacetime and can also be an effect of spacetime. And so on. This once again is a function of the conservation of energy. Energy has distributed into the three dimensions. But in order for it to be conserved, those three dimensions must link perfectly to one another, with no diminutive amortization of their original make-up. The only perfect link is one that shares cause and effect in both directions thereby creating a flowthrough of energy in either direction.

Each dimension has its own realm within which it manifests. For Materiality that realm is the physical realm. For Qualia it is the phenomenal realm. For Spacetime it is both and I call this the physio-phenomenal realm. These realms or dimensions have many processes that exist stemming from them as they relate to consciousness. An example would be that Materiality, in the physical realm, has cognition as a derivative of that realm.

THE ELEMENTS WITHIN THE 3 REALMS – As stated above these realms or dimensions have elements that exist within them as regards the subject of consciousness.

- THE MATERIAL REALM The material (or physical) realm is born from the distribution of energy as it manifests, due to being defined within the fluctuation of potential energy (see above). The elements of materiality, as they relate to the subject of consciousness is as follows:
 - OBJECT & COGNITIVE In the material realm, the main element is that of an object.
 This can be anything from the tiniest particle to a rock to a building. It also encompasses cognition since that is made up from material neurons. It is these object's characteristics and qualities that are the source for qualia.
 - PSYCHOLOGICAL Psychological elements are also considered part of the material realm since these states also have their source from material neurons (though there is a phenomenal aspect to them). In effect, these psychological states serve as objects in a sense for the processing of memorial concepts and related qualia. States such as joy, sadness, grief, anger and a host of other emotions constitute psychological realm elements.
 - CONSCIOUSS ATTENTION This, being one of the attentions, also has as its source neuronic processes and so is considered a part of the material realm.
- THE SPACETIME REALM Space and Time, as related above, come about as potential energy's fluctuation, fluctuates between location (space) and moment (time). They also are a part of the distribution of energy as it manifests due to being defined within the fluctuation of potential energy. I call this realm physio-phenomenal because it has elements of both. The elements of Space and Time, as they relate to consciousness are as follows:
 - MOTION AND TIME Motion and Time are key aspects of the basis of cause and effect, which affects how the physical elements and phenomenal elements of becoming conscious are based. Time and Motion are one and the same thing, just viewed from different vantage points. From the material vantage point, time is the key aspect. From the phenomenal vantage point, motion is the key aspect.

Note that time and motion always are moving forward. This is because the nature of motion (which equates to time – see above discussion) is that of producing an effect. The inherent nature of motion is that of cause. Motion, being part of the very first dimension, is not created by any causative agent, there is no cause that precedes motion. It comes about due to the uncertainty principle which states that

movement must exist in contra-distinction to non-movement. The more existent non-movement is then the less existent movement is. However, absolute non-movement would presuppose an at rest state, which as discussed above, cannot exist due to the uncertainty principle. Therefore, some motion, in the derivative form of time, would exist concurrently, and motion is therefore in existence (in the form of time not at rest). That motion transforms into elements of partial time and partial movement or material motion. There is no material cause to it – it is just a fluctuation from the uncertainty principle.

- CAUSE AND EFFECT Cause and effect are consequences of time and motion. So, motion, in whatever form (time or movement) is itself only a cause, the original distributed cause of energy. It henceforth can only produce effects, even if that effect is another cause (like movement or time, or physical transformation into the phenomenal). When viewed from the vantage point of velocity or movement (motion), the consequence of it being an effect is that it will always move from a cause (in the past) to an effect (in the ever-changing present). So, things move forward, from cause to effect. They do not move backward from effect to that of cause since there is no function for that to happen (except when smaller than a Planck length). This is the same with time; time moves from the past (cause) to the everchanging present (effect) by the same logic.
- THE UNIVERSAL CONSCIOUSNESS REALM (QUALIA) As stated above on pages 16 and 17, Qualia can be thought of as akin to information. The sum total of all information is called Universal Consciousness. This is not a thinking, brain-like thing, but is rather all the relevant data that supports all of what is an overall set of "knowing" and the set encompassed by the material and spacetime realms. As such, this has a universality in terms of it being total phenomenal datum.
 - THE BRIDGE That which allows the transfer of qualia to and from memory is known as the "Bridge" and is an element of the inner qualia of a person which results in consciousness when recognized by the Will. It is phenomenal in its recognized form.
 - THE WILL The fulcrum of what accounts for the transfer of physical sensory qualia data into phenomenal consciousness is the Will. It is brought on by *Recognition*. The Will, though of the Universal Consciousness realm, due to its association with information (qualia), is the same as Conscious Attention (which is considered a part of the Material Realm see above). This is the material side of qualia and so is associated also with the Material Realm (qualia has both physical and phenomenal characteristics).

THE VARIOUS ASPECTS OF CONSCIOUSNESS

All the above (elements or realms) add to the onset of consciousness, with its physical transformation of material or physical qualia, through cause an effect, into phenomenal consciousness and self-experience. Thus, it is the processing of objects through inner processes, that are part of the three

dimensions of energy, which go to make up consciousness. The two flowcharts exhibited and explained above, describe the full path from energy to consciousness.

Risking over sensationalizing this subject, consciousness, as a realm, is probably the most important and complex subject one can define. There are so many concepts and questions concerning consciousness. It's significant to point out that in light of the fact that we have defined consciousness as another dimension, it should bear serious investigation and analysis. How often do we come upon an entirely new dimension?¹

Space and time are so integral in all of physics, in all of our experiential make up, that they demonstrate for us how significant a dimension is as regards everything we do and explore. This section is concerned with how consciousness fits in with physics, with physical processes and physical make-up. As such we will try to avoid what I would call Mysti-physics, that is, mysticism combined with physics, and instead attempt to stay purely in the physical realm (though with a non-physical subject such as consciousness, it is difficult not to encroach upon the mystical and the subjective). There is so much background and so many questions that need covering, with so little time, (no pun intended).

The key to understanding consciousness, on a physical level, lies in the enigma of movement (which we will address below). Apart from being a universally separate dimension, which isn't necessarily tied to just humanity but exists everywhere in the universe (just as space and time do), consciousness is a part of human existence, again, just as space and time are.

Spacetime Consciousness

How similar is consciousness in that sense to space and time? Do we have space and time within us like we apparently have with consciousness? The answer seems to be that we do not. Instead, space and time are what we exist <u>in</u>, but they are not part of us – they are an independent background. However, we do have a significant connection within us to the <u>conceptualization</u> of space and time. It is a key part of our being – it is the background to all that we do. If we had no concept of space or time, we wouldn't, interestingly enough, be conscious!

So, the first concept to realize about consciousness is that, just like space and time are connected to one another, intertwined - consciousness is also intertwined with space and time. This makes perfect sense. What I am proposing is that all dimensions, which are derived from the first cause (energy), must be connected and interrelated with one another (conservation of energy is at play here). Thus space, time and consciousness are all intimately interrelated and have combined *causes* <u>and</u> combined *effects* with each other – each dimension coexists, exhibiting both cause and effect with the other dimensions. Therefore, spacetime should be considered Space-Time-Consciousness (S-T-C). Try plotting that one on a graph!

¹ For a full discussion on consciousness see my treatise, "The Mirror of Consciousness"

The Physical aspect of consciousness

But a portion of consciousness is physically part of us, unlike space and time which are purely backgrounds and not physically within us. Yet we contend that consciousness is a universal, separate, background independent phenomenal dimension – how can both these statements be true? They are both accurate in the following sense: *Our* consciousness is a subset of a *Universal* consciousness. What connects our consciousness to the universal consciousness is thought and perception. Thought and perception, which are physical processes, are also derivatives of consciousness and as a derivative, they act as a bridge between our consciousness and the universal consciousness.² Thought and perception, just like other derivative qualities of consciousness, such as colors, has the dual characteristics of being both physical and non-physical (phenomenal).

The enigma of movement

Because consciousness encompasses thought, its physical aspect is subject to the laws of physics. Specifically, the relativity of movement, of frames of reference. We are moving over 1 million miles per hour within the universe, thousands of miles per hour within our solar system and some variable amount of velocity with our own movements. How is it, with all this motion, that consciousness (the non-physical qualitative aspect) moves along with us? This seemingly defies explanation. How can a quality move?³

If we were considering the physical aspect only, the physical make-up of thoughts from neurons which chemically and electrically fire, then this would be fairly straight forward. The physical thoughts would move within a reference frame, and would therefore be at rest and move along with that reference frame - just like when we sit at rest inside an airplane or stand in an elevator. But what enables the <u>qualitative</u> derivative which we call thought and our individual subset of consciousness, to also move along, at rest, within a reference frame? It must act in a physical realm also. This is an enigma, answered in the next subject "physics of consciousness".

The physics of consciousness

There are a variety of physics processes that are happening in this. The first concept is that because consciousness is intimately connected to Spacetime (S-T-C), and movement occurs within the relativity of Spacetime, then consciousness will move with Spacetime by virtue of the fact that it is connected

² See "Details of consciousness" below for a realistic explanation of what "Universal Consciousness" actually means.

³ See footnote 103 on this subject: ¹⁰³ All of these five actions are the creation of the bridge to universal consciousness (union with God or Energy) which is discussed and described later in this.

with Spacetime, and being connected will move along with it, relative to it – just as time moves with space coordinately. The non-physical realm of consciousness is connected, through energy momentum-transfer to Spacetime, and therefore is subject to general relativity and thus moves along, within a reference frame, in a relative state of rest or of relative movement. Each discrete portion of space and time has with it a discrete portion of consciousness (or in other words; each portion has within it – all of universal consciousness's qualities). It is hard for us to conceive that such a huge quantity of something (in this case qualities) could fit in a confined and tiny space. However, qualities or consciousness are of the phenomenal realm, not the physical realm, and as such do not take up space. The ability to connect to the quale of green exists at any location (witness our ability to conjure up green with our eyes closed, anywhere, at any time).

The second concept is that consciousness is massless - derivative thoughts are massless. Does this massless entity have a velocity at the speed of light as do other massless objects? The answer to this is no, consciousness though massless like Spacetime, does not have momentum or velocity. But like most limits (of which consciousness is one – all dimensions are limits) consciousness is invariant as to distance and time and therefore will exist invariantly within any and all reference frames, just as light does (though consciousness would be invariant non-physically – phenomenally invariant).

Thirdly, if it is part of S-T-C, then just like Spacetime, consciousness should presumably be subject to gravity and therefore curvature. This is not the case though. Viewed from its discreet, individually separated aspect in relation to Spacetime, it does not have a physical make-up. It only manifests in a physical sense when considering it as S-T-C connected, just as space has its separate aspect from Spacetime. In its S-T-C state, consciousness bends along with Spacetime, but only in a connected sense. It exists within the curved path of Spacetime, but gravity has no effect upon it otherwise. Consciousness is subject to gravity only in the sense that it exists along with the object it is in a frame of reference with, travelling along gravity's curved shape.

In summary, the physics of consciousness states that 1) Consciousness is relative to the frame of reference it is in, 2) The frame of reference includes the person it is a part of, 3) It is massless but does not have its own velocity, 4) It is invariant, and 5) It is not subject to gravitational influence except in its S-T-C connected state.

Connection to time

We've explored consciousness's connection to space, but we haven't considered its connection to time by itself as a separate dimension. Is consciousness connected to time, and if so, how does that effect our thoughts and consciousness?

Time absolutely affects consciousness. The same function time has within everything; the same functionality time has with energy; it also has with consciousness. All the dimensions are interrelated to each other. Time comes from energy; it manifests when kinetic energy manifests and it is part of the transformation and conservation of energy. Its effect on things is to casually endow objects with *duration*, with a persistence of existence. Duration is to time the same as momentum is to space. While

space has an at rest state - flatness, time has an at rest state - "now". However, it does not have a future or a past, only a now. The past is a function of our thoughts (memory) as regards time (just as thoughts are a bridge to consciousness) and the future is our thoughts being logically oriented as regards time. Consciousness's "at rest" state (like flatness and now are to space and time) is the state of a flat probability wave – the state of nothingness – no waves. Regarding the "now" of time Schiller states;

"For a photograph, the duration is given by the shutter time; for a measurement, the average is defined by the details of the set-up. Whatever this set-up might be, the averaging time is never zero. There is no 'point-like' instant of time that describes the present. The observed, physical present is always an average over a non-vanishing interval of time. In nature, the present has a finite duration. To give a rough value that guides our thought, in most situations the length of the present will be less than a yocto-second, so that it can usually be neglected".

Therefore, consciousness's relation to time is its relation to the now. It is a constantly causative entity in that the effects of moving through time are causative of <u>constant</u> data, data with duration – data that persists. Time's causative aspect is connectedness, connecting the past, present and future*, as well as connecting consciousness to time. *The past through memory and the future through logic – the present through the now.

It is ironic, although time is constantly changing, from the last moment to the present one, it is nevertheless all the <u>now</u>. It is constantly changing to the now! But really this is no different than the fact that space is always made up of a point and light is a maximum limit and invariant. They are all made up of discrete fundamental units. Notice that with time its fundamental essence is not physical. This is unlike space which is purely physical. We contend that consciousness endows space with its physicality and time with its non-physicality through endowing them with the quality of <u>existence</u>.⁴ This then shows the dual nature of consciousness (which is mimicked in individual consciousness). It shows its interrelatedness to space and time.

Remember, each dimension "requires" the interrelatedness of the other dimensions, they are affected by each other's causative aspect. And each of the causative effects, from each dimension, further causes effects on that dimension's derivatives - the qualities in the case of consciousness, as is extended distance for space, and persistent duration for time. So, space links with time and consciousness, time links with space and consciousness and consciousness links with space and time. This is a key point; the dimensions can only exist if they are connected to each other, without those connections they would not exist. This makes perfect sense since they are derivatives and transformations of energy and the transfer of energy is multi-faceted, it is in a *superposition* as regards S-T-C. Since energy cannot be

⁴ It is universal observation that causes space and time to exist. Without the identity of space and time (consciousness of it) then they would not exist. If a tree falls in the forest but no one is there to witness it, then it did not happen. To "happen" is a mutual duality between the physical and the phenomenal elements of the whole. There needs to be both for there to be existence.

destroyed, it must maintain its connectedness among the dimensions as it separates and thus evolves through the dimensions. One hundred percent of the energy must be present for there to be existence (energy is existence). You cannot have 2/3rds of the energy existing with just space and time. You need all of it, 3/3rds, you need all three dimensions – S-T and C.

The location of consciousness

The question comes up; Where is consciousness located? This is really two questions; Where is it in relation to oneself and where is it located universally? On a universal basis, consciousness exists anywhere that energy exists (in any of its forms). It manifests as a dimension with the other dimensions. Therefore, in whatever unit of size and location, as well as whatever point in time that energy manifests or that existence is, the manifestation of consciousness also takes place and it also resides within matter (as well as in Spacetime). Therefore, consciousness exists <u>everywhere</u> due to its relation to space, time and matter. Like the other dimensions, consciousness is a discrete entity, derived through its relation to space and time, and, in that sense, it is quantum in nature.

On an individual level, consciousness does not situate, there is no individual location. This is brought out by the fact that it is massless, cannot pick up mass and it is not subject to gravitation. It does however, contain energy. When kinetic energy transforms into S-T-C and matter, it transfers energy to each of the dimensions (S-T-C).⁵ So, if it is not located within us – where is it individually?

This is where we need to try to not resort to the mystical (Mysti-physics). We <u>tap</u> into the universal consciousness. Every atom, quark – what have you, has as a part of it, the dimension of consciousness, formed in the initial creation and remaining with it the same way space and time does. However, as individuals, consciousness is tapped into by our thoughts and perceptions.

But what exactly does "tapped into" mean? It is very similar to how a collision works. In a collision the kinetic energy is transferred to the object that it collided into. In that sense, there is a <u>linking</u> between the two objects. Specifically, there is a linking of energy through the transfer of kinetic energy from one object to another. Another example is the increasing of mass as an object accelerates speed – there is a one-to-one relationship between energy and mass, or space x's time and mass.

In a very similar way the function of thought links with consciousness, only consciousness has a certain cause and effect on our thoughts – a recoil so to speak, an exchange between consciousness and thoughts that consists of awareness, consists of information. That exchange is from the fact that

⁵ Notice that kinetic energy transfers that energy to the five dimensions of space (length, width, depth), time and universal consciousness, but also transfers it to matter (the material realm). Is matter therefore actually another dimension? I would tend to say it is. So, then we would have six dimensions.

⁶ Again, this tends to indicate that everything in the universe is simply made up of dimensions and we just choose to consider one of them as something else - matter.

consciousness imparts qualities (qualia) to our thoughts through the agency of perception and the senses. Therefore, unlike space and time which do not impart anything onto our perceptions (they are background only), consciousness does transfer energy and transforms its energy into biological energy inside of us. This is what we mean by "tapping into". That is where individual consciousness is "located" – with our thoughts and perceptions – in the brain.

To summarize; we are made up of atomic particles. These particles have as part and parcel to them the four dimensions, which includes consciousness (again, do not get lost in thinking of consciousness as a brain thing – it is an actual dimension and it's only when it interreacts with our perceptions and thoughts that it manifests in the brain). The consciousness existing throughout the universe transfers its energy (in the form of biological energy) through the agency of perception and awareness – it is there that our individual consciousness is located, within the energy in our brains and in the physical make-up of our thoughts and in the qualitative (qualities) make-up of our perceptions.⁷

Qualitative Perceptions

As the above concepts indicate, consciousness moves in the form of thoughts, but it transfers itself in the form of perception or awareness (this is where we are saying that "biological energy" comes from - food is from a different type of bio-energy source). So now we need to look deeper into what perception is. To do this we must put away our bias that a perception is a function of thinking or that it is a consequence of the physical interface between sensory input and our sense recordings. The perception we are talking about is not of that sort — it is instead, a quality.

If you recall, in "Mirrors", we introduced the concept of qualities and we brought out that qualities are universal derivatives of consciousness:

"Where then do the derivatives of consciousness exist, where is the quality of color before perception? The answer is that they are everywhere. Here again, because we are biased to consider color a perception only and not a derivative quality, we can't conceive of it as an entity by itself, akin to space and time. But like space and time, the quality of color, as part of a dimension (consciousness), exists everywhere, we are just "tapping" into it in the same way we "tap" into space and time, and their extended qualities (distance, duration), with our perceptions".

If we understand and accept that, then we are on our way to understanding how perception is a quality. We are saying that perception itself is a separate *quality*, just like color is a quality -- completely separate from that which it perceives. So, a sensory perception, like green, is ultimately not a wavelength or neurons firing, but is the universal quality of green and it carries along with itself - energy. A perception itself is a separate quality. It is not the recognizing of the sensory input or even the perceiving of the derived quality – it is by itself a quality – it is that quality that we "feel" as perception, and it too carries energy within itself.

⁷ Therefore, thoughts and perceptions can, and do, transfer energy to our bodies. This energy comes from the energy inherent in universal consciousness.

A perception has a quality to it, and through the subconscious act of perceiving, the qualities (like colors) are transferred to us as derivatives of consciousness⁸. Perception (Recognition) is the agency of quality transfer and energy transformation within consciousness, brought about through the perceiving of qualities. Again, perception is not a thought, it is not in the form of thoughts, it is the non-material (massless) derivative of consciousness and the cause of our superposition with qualities – those qualities having sensory and qualitative physics in the fifth dimension of universal consciousness. It is essentially a bridge between consciousness and qualities. Add up all the qualities (and remember there are many) and the sum of them is the existence of perception. Perception therefore consists purely of qualities. Perception is the bridge to universal consciousness, to atonement (at-one-ment).

Therefore, taking all of the above into account, it can be said that one's individual consciousness is located within the biological energy that was transferred, when consciousness transferred its energy to the quality derivatives which we tap into with the transferred biological energy (perception). Our individual consciousness is therefore made up from qualities and it resides within our biologically produced energies transferred from consciousness through and as the agency of perception. The physical receptacle of this energy transfer is our brain, our neurons.

Thoughts - the link to consciousness

As said above, thoughts, in the form of perceptions (recognition), link us to consciousness through qualities (inner qualia). They are the effects from the causes due to consciousness in the form of qualities (including the quality of perception). These thought effects carry with them probability waves⁹. Some of these waves are benign in that, though they may have a probability wave associated with them, many of these waves will simply create other thoughts, perceptions or qualities without needing any <u>action</u> to collapse the wave. What collapses those types of benign probability waves is due to the patterns stored in our neuronal network and memory. The neurons cause effects that collapse those probability waves by themselves, automatically (and will result in *recognition*). This might seem confusing, and it is, because it is a quantum mechanical view of thoughts and the thought process. Anything from quantum mechanics is confusing (as Richard Feynman, a famous quantum scientist said, "anyone who says they understand quantum mechanics – doesn't understand quantum mechanics).

But other thoughts create probability waves that require some sort of <u>action</u>. This is due to the response from the neuronal network, which in turn is from past probability waves that required actions (memory, logic, experience, etc.....). When action is required it triggers the *Will* to exercise judgement, choice and decision – that is; to flex. This in turn causes the collapse of the action-oriented probability wave, which proceeds to cause other waves. So, thoughts are the effects produced from consciousness and qualities

⁸ The "understanding" of the qualities, like color, is not perception, but rather is recognition and memory.

⁹ A probability wave is an actual wave (in quantum mechanics) that is made up of a variety of waves. Depending upon which wave manifests into reality (through the action of a measurement) that particular probability will manifest. With consciousness – these waves are made up of different thoughts, perceptions and actions.

(through perception) and become the causes of probability waves which cause the operation of the Will or they cause other thoughts. Throughout this process, energy is being transferred and conserved.

Here are two examples - one benign and one action oriented:

Your dog picks up her bone and wags her tail at you. No action is called for here, there is however a <u>re</u>action (it could be love, thinking she's adorable, or any number of benign responses that have no call for action, but come from your predisposed patterns or past, stored in your neuronal network. Your response collapsed the probability wave of possible reactions. Your response did not involve Will but rather it automatically reacted within neuronal networks from past patterns, logical processes and experience as well as emotion. All in all, it is benign. It has a lot in common with dreams where stream of thoughts proceeds on their own with no need for you to intercede with your Will.¹⁰

Conversely, a person picks a fight with you and it's possible it could escalate into violence. This has set up a situation that calls for some type of action — a decision must be made, a decision that will collapse the wave and determine future waves. This "call to action" is also based on neuronal networks of past patterns, experience and logic. But the neuronal network in this case also produces an attention that this decision requires the utilization of the Will (this can be triggered by different causes such as fear, love or a variety of emotions, which are themselves qualities that are derived from consciousness). The Will is then triggered and makes a choice of flight or fright, collapsing the wave.

Throughout these processes, energy is being transferred and is flowing through biological effects in the neurons. The flow of energy, from consciousness and qualities, to thoughts and perception, proceeds naturally and efficiently. We may think that all our thoughts are a conglomerate of disordered, inefficient parts, but the process of energy transfer utilizes the most efficient path and the least restriction of energy.¹¹

Consciousness & The Soul

This brings us to our last subject regarding consciousness – the soul. Is consciousness the same as the soul or is the soul an individual entity? Does the soul exist and does it continue after death?

The subject of the soul is a controversial one. One that is fraught with fear and hope, complicating a clear, objective examination of the subject. Fear, in terms of the fear that we die, and Hope, with the hope that we carry on anyway and beat it. Many view the soul, whether consciously or subconsciously, as a possible redeemer of death, the entity that could allow us to carry on after we die. Others, believe that the soul is part of God within us (a very physics-oriented belief as it sounds similar to energy transforming into other forms). Still others, very often physicists, reject the idea of a soul and would rather believe that we are made up purely of atoms without anything beyond that physicality.

¹⁰ The difference between dreams and reality is simply that dreams do not include Will and that they do not bridge to the universal consciousness.

¹¹ Again, dreams are interesting here in that they basically are frictionless and without any probability waves. Is it the Will then that causes friction? And is friction then the agent responsible for our inner reality?

Throughout our discussions about consciousness, we have demonstrated the concept that there is more to reality than just physicality, that there is a phenomenal dimension which permeates everything in the universe, including us. We have further postulated that the way it is "in" us is through a linking of thought and perception to this universal dimension, consciousness. The soul would not be this linking since the link is not an entity, it is a transfer. Thoughts certainly are not the soul. There does not seem to be anything left then that is individual that would constitute a soul. However, we contend that there is, but it doesn't take the form that one usually considers the soul.

We start with consciousness, Universal Consciousness. Consciousness, as a subset of Universal Consciousness, has all the earmarks of being the candidate as a <u>universal</u> soul. Universal consciousness has many of the characteristics that we ascribe to the soul. It is never destroyed and therefore has the soul-like quality of carrying on after death, and it predates birth like the soul. Those two characteristics follow thermodynamics in that it cannot be created or destroyed (even though creation does happen at T-1, it exists within potential energy before this, so it predates birth/creation). Like the soul, universal consciousness contains everything that is essential to what exists – in the universal soul's case, everything that exists. So, the soul in this case, the universal soul, would be just another name for universal consciousness.

But what about the individual soul? We contend that the individual soul is not separate from the universal soul. *That it is universal consciousness itself.* That it is the same entity for everyone, like all dimensions are the same for everyone. That the individual soul is not different from person to person – it is universally uniform – not unique individually, very much like space and time are the same for everyone. Then how can this be considered an individual soul? This would not be any different than any other dimension. For example; we all have our own individual time within us. That is; time is my time, it is unique to my experience of it, it is not shared with any other person – we have our own integration with time. Yet time is a universal dimension. This is similar to the situation with the soul and consciousness.

The concept that our individual-ness is not individual at all but is rather part of a universal soul, one that is the same for everyone, is difficult for us to accept. But it is no different than saying that an individual cell within our body is not separate from us but is a part of the entirety of us, and is essentially the same as all other cells, even though the various cells perform different functions and processes. We do not have any problem understanding it from that viewpoint (that of a cell). Perhaps if a cell could talk though, it would also protest that it was an individual!

The reconciliation of a universal dimension to individuality comes in the form (or quality) of separation. It is because we consider ourselves <u>separate</u> from any universality that we believe we are not all the same. Even though we all come from the same exact beginning and tap into the same universal qualities, we nonetheless experience ourselves as unique individuals with a "something" that is our self and is eternal. What is it though that causes us to think this way? Religion calls it faith. We call it "the perception of the quality of separation" and it comes from the material aspect of being. Being material, it is separate.

Thoughts and perceptions play an interesting role in the reconciliation of individuality and universality, and its role makes perfect sense. Thoughts and perceptions, as we have said, are the link between our individual consciousness and the universal dimension of consciousness. It links up as a sub-set of the

universal dimension. So, in that sense thoughts and perceptions are characteristic of the universal. On the other side of this linking is the individual connection, our thoughts and perceptions cause the existence of an individual consciousness (which we are now calling the soul as another name) through the perception or thought of separation. So, it is thoughts and perceptions, which <u>separate</u> the universal consciousness from the individual consciousness, and accounts for the belief that we are separate. And this is exactly what we are saying; that thoughts account for our inability to believe that the individual soul is really the universal soul, which by definition would mean that the soul is the same in everyone.

Thoughts and perceptions are individual in nature (though they nonetheless act as links to the dimension of consciousness). Being individual and *material* in nature they are experienced by us as being particular to our self and separate. In fact, they are a huge part of our make-up — our experiences, our memories, our ways of being and way of thinking, our personality, etc. They are the whole of what makes us up in the material realm. But because they are a cause responsible for creating an individualness, they by nature must cause separation. That separation creates a situation where we are invested in an individuality due to the *effect* of that link. Without our thoughts we would not be separate, we would be one with universal consciousness. Thoughts are a link, *but they are also a barrier*.

Another way to think about this is that the thing that keeps us separated from universal consciousness is the probability waves that exist throughout our lifetime, as thoughts and experiences proceed to affect us (karma). When all waves are eliminated then what is left is only the universal side of the "link" which kept us separate when it interfaced with probability waves. If you recall we said previously that the way to heaven or nirvana, is through the total elimination of all probability waves. When all the waves have been eliminated (which we said that only very few would ever do) then our biological energy, which powers our thoughts, has become the energy within consciousness again and we have returned home — our soul has carried on in "heaven" in religious parlance — we have in a sense conquered death. Note here that with death comes the total elimination of all probability waves — the exact make-up of universal consciousness.

But how about cheating death – can't we do that anymore! In the sense that "we" are ultimately consciousness, after dying and automatically eliminating any further waves and/or thoughts, we have carried on after death – the only difference between this belief and our previous belief is that, "I carry on" is now, "We carry on". We are all therefore one being, one soul, we just think we are many separate souls because of our thoughts. But our thoughts are not who we are. They are our servants not our master. We all are what produces thoughts – we are the fifth dimension!

To summarize all this down to one paragraph:

Consciousness is another dimension which is part of the flow and cycle of energy, as are the other dimensions. It has a wide spectrum of energy transfer and conservation. We are a sub part of that spectrum. Due to the rise of biological life, we partake in the energy transfer and the promotion of the energy cycle. Our responsibility here is to rid the material world of decoherent probability waves, caused by the effects of energy proceeding through the five dimensions, in order to result in the most efficient flow of energy. We accomplish this through moral actions achieved by the promotion of the good, which is the natural and inevitable state of things, the efficiency of energy. We therefore need to live our lives naturally which thereby allows the transfer and flow of energy. Through eons of eliminating probability waves or karma (arising as an effect brought about by the rise of life) we achieve the completion of the transfer of energy back to pure consciousness, and thereby co-operate in the

returning (cycling) of energy back to potential energy (God). As such, we are a small but important part of the entire spectrum of energy's manifest cycle. In a sense we are a transfer agent of energy and a fulcrum of the cycle of energy and entropy. A fulcrum in the sense that we eventually succeed in causing disorder to become re-ordered and therefore assist in the cycling of entropy and energy to its original state.

This theory of energy flow, participated in by living beings, is brought out wonderfully by the following passage by Krause in his book "Atom";

"Instead, from the creation of protons to the creation of stars, we have witnessed over and over again a local departure from equilibrium, followed by a return back to the fold. Everything of interest to us in the universe has followed from these momentary deviations. Following that, gravity became the engine for much of the action. Small density fluctuations grew and led to local storehouses of energy. The gravitational energy of falling matter was converted into heat energy, which powered the stars, keeping them locally in equilibrium, but fighting a losing battle against the inevitable collapse which will pour that energy back into the universe. As a result of this storage of energy, the elements that make life possible were created. Departures from equilibrium in molecular clouds shielded elements like carbon, oxygen and hydrogen on the surfaces of grains from radiation that would have stopped them from combining into complex molecules. And ultimately life exists only as long as it can perpetuate departures from the inevitable sharing of energy and disorder that govern the universe as a whole. Darwin was right: From an underlying physical perspective, the origin of life and the origin of matter are very similar. The interesting question, which we shall return to, is whether their end is also the same ... Life represents order in a universe that is designed for disorder".

It seems, as we brought out above in our description of energy cycling and entropy cycling, the return to a lower state of entropy, of energy, is apparently part of every process in the universe, from the beginning of energy to the return of energy back "home". Some agent is always responsible, at the point of equilibrium, to begin the return of entropy and energy to its original state. And everything begins with a deviation from that state – creation causes a cycle of disorder, followed by a return to the state of potential energy preceding creation, and this cycle proceeds infinitely. Therefore, there is a fourth principle of thermodynamics, that is; Energy and entropy will ultimately cycle between low entropy (potential energy) and back again. *Energy transforms back to itself through the cycling of entropy*.

Krause puts this perfectly;

"... If matter can literally arise from nothing, in this case of a primordial sea of matter and anti-matter that would otherwise have been destined to annihilate to radiation, then matter is destined to return to nothing as well".

And

"... An accident of nature, 13 billion years ago, is likely to have led to a slight imperfection in the universe, a small departure from equilibrium. This resulted in the existence of matter, and ultimately of atoms in our universe".

He goes on to state that protons may decay into electrons and positrons (anti-electrons) who cannot find each other in the vast emptiness of space (after eons of inflation), and thus those electrons and positrons will carry on the universe as a disruption of the then equilibrium again.

The make-up of consciousness

We previously went to great lengths to advance the concept that consciousness is another dimension and that our consciousness is a sub set of the universal consciousness, brought about through our linking to the universal consciousness through our thoughts and perceptions. This section attempts to look at this from a different angle and to simplify our conception of this.

The argument arises that if we are tapping into a universal consciousness through our thoughts and perceptions, how exactly does this linking work? Is it a physical linking? And if so, what exactly are the physics involved.

To answer this one must see our individual consciousness as our self-awareness of things. This doesn't take anything away from the concept of consciousness, it is merely just another label for it. That self-awareness, according to our theory, is made up of our thoughts and perceptions as they cohere with an all-encompassing awareness, the universal awareness or consciousness. And we are asking ourselves how does that dual linking of thoughts and perceptions between individuality and universality actually physically work? But it is not as simple as that.

The answer is not in some exposition of how a certain physical process works. It is much more involved with a process that takes *time* into account. Time, in terms of the amount of time it takes to form consciousness. It also entails looking at the variability of consciousness. That is; self-consciousness varies; It evolves within us. So that our initial consciousness is a lesser consciousness than later on, which is less than even later. Our consciousness keeps evolving. It evolves toward becoming more and more a part of the universal consciousness.

So, what is really happening here? The key to this is to replace the label "awareness" with the label "reality". Then we have; There is a universal reality and our individual reality, which is a sub set of the universal, is brought about through our thoughts and perceptions¹². By gaining knowledge about reality, we incorporate the reality we have experienced. What we are tapping into is the whole of reality itself. That whole reality of everything in the universe, how it works, what it is made of, what happens, etc., is the consciousness of the universe – it is what exists. Universal Consciousness can just as well be called Universal Existence.

Therefore, universal consciousness is nothing other than the existence of everything. The other dimensions (as posited previously) as well as all the derivatives and qualities, and, the manifestation of how everything works, what makes everything up, how it behaves, what its rules are, etc.

There are currently forming in the world of physics new theories, the idea that the universe is made up in many respects by information. What is meant by this is that two or more objects (it can be many

¹² And of the Will.

objects) have information about each other, beyond just their objective, physical make-up. If I hold a white ball and I have information that your ball is the opposite color, then I know that your ball is black. This information was not inherent in the balls, but rather came from having information, not physical, about the state of the two in interaction with one another.

The information is out there but I now possess this information that was abstracted from the physicality of the objects, in this case two separate balls. Universal consciousness then, in a sense, is the total amalgamation of information. That information is available to be accessed by us, and as such, is a derivative of consciousness. This derivative is not physical, it is abstracted from the physical dimensions, as we stated above. We consider this a dimension precisely because, apart from "what is there physically", there is a trove of another existence that is out there – information, inter-relational information about things. And just as stated above, these informational relations with objects are intimately related to the other dimensions – all dimensions interrelate to each other.¹³

So, it is not that universal consciousness is a universal awareness by a universal mind. That is just succumbing to thinking of the word "consciousness" again as a brain thing. It is not. It is abstracted information, that has a separate existence from the physical world, but is integral to it and represents an essential and vital component of it.

We gain a part of this consciousness, our subset of it, our individual consciousness, by the imparting of this information to our thoughts and perceptions, of the informational aspect of things interacting together, as was stipulated above. The more information or reality we have received, the more consciousness we have and the more we partake of the universal consciousness. Space and time, without the consciousness of information about it, doesn't exist. It is the dimension of consciousness that gives existence to space and time, and therefore to everything. Yet, space and time also provides consciousness with the aspects from which it is made-up from. They are all both causes and effects of each other.

What about when we have information that is wrong or mistaken? Is that a part of reality, if it is indeed mistaken? No, it isn't, not all information we have is from reality. We have the functional ability to put things together that do not exist. It is abstracted from reality but in an incorrect way and thus does not reflect reality itself. This is our karmic obligation, so to speak, to isolate and gain interrelation with actual reality. Eventually, if given enough time and experience, mistaken information will conform to reality and thereby correct itself.

One last point about consciousness. This theory does not mean we have to give up on our perception that there is something unique in ourselves which has a particular "feeling" about it which is our consciousness. That our consciousness is more than just an amalgamation of information and thus there is no "us" involved – we are just computers or zombies. We are immensely involved. How though? It comes full circle back to qualities. Qualities, though information, is more than that. A quality is not

¹³ This transfer of information, and the manifestation thereof, goes along with our contention about entropy. The ordering of information about objects, which have this information as an existence in reality (though abstract), is a lowering of entropy and thus a part of the cycle of energy.

simply an abstract of an object but is an ethereal, phenomenal correlation between our minds and the object that has that quality. The quality exists separate from information and is a priori part of reality and henceforth accessed by the dimension of consciousness, then transferred as observations perceived by us.

The quality that most affects the sense of our own individual consciousness is a particular feeling that we all have that we call our consciousness. It is a quality a priori that we tap into. The following quote from Carl Rovelli is fitting:

"... The notion of information is gaining ground as a tool for understanding. The world should not be understood as an amorphous ensemble of atoms – but rather as a game of **mirrors**, founded on the correlations between the structures formed by combinations of these atoms. We are not atoms: we are orders in which atoms are arranged, capable of **mirroring** other atoms and **mirroring** ourselves"

To end this section, the following quote concerning the essential characteristics of the dimensions, as they relate to the infinite, is fitting.

Space is the **Location** of God & Energy – **Everywhere**.

Time is the **Existence** of God & Energy – **The Now**.

Consciousness is the **Awareness** of God & Energy – **The Soul.**

CONSCIOUSNESS EXPLORED - The following pages give additional insight into the various ideas surrounding consciousness as posed by various philosophers and experts in the field, along with supplementary comments, by myself, on how these questions inter-relate to the theories I have posed throughout the above concepts.

These authors include David Chalmers, an expert in the field who looks at consciousness from both a philosophical and a scientific vantage point, Alexander Bodachev on objects, Gary Hatfield on the reality of qualia, Derek Schiller on hidden qualia, Michael Tye on qualia and Emanuel Kant on the relationship of space and ideas about causation as well as other relevant subjects.

The author's statements are in green while my comments are in blue.

Author's Postscript

Upon reviewing this after I had finished it, it occurred to me that I had left out an important explanation about how exactly the recognition loop is able to transmit, from physical memory, a phenomenal experience – the crux of the "hard problem".

Although I did explain that it was through calling up an inner quale, that matched an external quale, which our senses had taken in, and then transmitting that inner quale memory over to controlled and conscious attention (the Will), and although this described accurately the process by which this is accomplished, it did not address the why and the how it is that our inner quale carries with it the phenomenally remembered experience. This postscript now addresses that.

For an inner quale to be able to call up and then transmit, through recognition, our previous phenomenal experience, which was then coded into our memory – the inner memory must have with it the original phenomenal experience with which the matching of the recognition could call up and then transmit to conscious attention (the Will). How did the original coding of that similar inner quale, with its phenomenal conscious experience, happen in the first place? It had to be coded in that way at some previous point in time – so how was that accomplished? Since there was originally, when coming across that quale for the first time, no inner quale yet developed or coded with which to match, how did this experiential coding come about?

If you remember, there was one type of attention that I mentioned which directly resulted in conscious experience without any mediating process with which it would link to consciousness from – that was Awe. We react with Awe when we come upon something that has no previous memory, and thus recognition, associated with it.

A strictly phenomenal only view would deny that any cognitive process (also sometimes called representationalism) is involved and that consciousness is wholly non-physical. I believe however, that it is the recognition program that connects the two usually, while at other times we <u>directly experience</u> the phenomenal without recognition, as when our Willful directiveness has eliminated all cognitive processes, as in deep meditation, or in the case of Awe. When cognitive processes are eliminated, which actually filter and limit direct phenomenal external qualia, recognition is skipped and the phenomenal qualia is directly duplicated in consciousness without any need for a transferring mediation.

The example I gave was that of coming across a tornado for the first time and never having had even an explanation of what that was. In that type of case, no attention is called upon and no recognition can take place since it doesn't yet exist in our memories. Instead, the experience of it, with all the various aspects that associate with it (maybe a faster heart rate, dilated eyes, fear, etc.) is transmitted directly to our consciousness or conscious attention from the external quale that was emanated from that tornado (no inner quale was needed, or indeed could be formed yet). Whenever a perception is brand new this will occur, it doesn't have to be as dramatic as a tornado. It could be a glass of milk or anything new to the brain, new to our senses.

You see, the memory is in a way a limiting process – it acts as a filter. It codes external objects, from external qualia, in a physical receptacle (the memory). Because of this it blocks, so to speak, the <u>direct</u> experiencing of that external quale and would prohibit the linking of its physicalness into a phenomenal output. Without memory limiting the direct, brute, unmediated external quale, due to physically limited coding of the quale's phenomenal aspect (remember, qualia have both physical and phenomenal aspects according to my theory), an incomplete and only a physical transmission and coding would occur. Unless, that is, the original coding of the direct externally produced phenomenal experience into memory includes all the experiential aspects of the original reaction, the original phenomenal experience.

This is the case with Awe. The very first time we come across an awe-like perception of an external object, we not only code the physically transmitted phenomenal quality of the emanated quale object into our memories, but we code with it all our reactions to it – the physical representation of the conscious experience that happened along with it (emotions, heart rate, cognitive perceptions, etc.). Then, in the future when we come across that scene or object again for the 2^{nd} time (or 3^{rd} , etc.), we can call up, through the recognition matching process, the exact nature of the consciousness that was directly transmitted to us the first time, with all its various aspects, all its conscious aspects, feelings and associated perceptions. A mirror image.

In that way, not only does an exact, or near to exact, duplicate get matched, recognized and then transmitted through our conscious attention to consciousness, but everything that was associated with it (all the accounterments) gets transferred and linked also. That holistic memory transfer is therefore a duplicate of a phenomenally based original experience and is therefore also phenomenal in its <u>effect</u> (but not its construction).

But I have stated that it doesn't have to be an exceptionally traumatic event or new object – it could be as benign as a glass of milk, a rock, etc. But when does such a common object, a brand new, never beheld before experience occur? It is when we are babies and young inexperienced beings (though those new experiences would continue through toddler years and so on as we grow up).

As babies we come into this world with a blank slate of memories (though we do have certain survival instincts). Therefore, every single experience, every object has no memory associated with it yet. Every one of those is processed as Awe and therefore processed directly onto our consciousness, phenomenally.

Every minute newborns are constantly being "made aware" of the new. As they process these new experiences, they are also coding them into memory. And as they develop cognition and feelings around those objects and experiences, they will code more and more associations onto it in memory for later retrieval. In this way, their first view of a chair might have a small amount of conscious data that the baby experiences and stores, but as it computes that it is for sitting, this information is coded with it. Until eventually, a look at a chair has with it an in-depth, complex and multifaceted inner remembered experience with which to call up and link from.

It becomes quite extraordinary then that when we look adorably at a baby going coo-coo or gaga, his or her miraculous brain is going through quite a trip of constant awe!!

These new experiences and their associated aspects do not only hold true for physical objects but also hold for psychological ones like sadness, boredom, love and the host of emotions that we come to "learn" about experientially. Perhaps even, our extended length of development into adulthood, as compared to other mammals, accounts for our higher and more in-depth and developed consciousness (or vice-versa).

So, in the final analysis, it is the plethora of qualia experiences of awe that accounts for the transition of a physical or psychological construct (rock, milk, sadness, etc.) into a phenomenal conscious experience.

One last point about consciousness: it is a very complex experience. One does not just experience a rock, but rather an entire scene with which a rock may be just one consciously <u>attentive</u> object out of many, including all the associated accounterments or aspects of that scene and all the various qualia in it. Therefore, consciousness is very multi-faceted. We go through our day, incorporating whole networks of complex conscious experiences in almost everything we feel, see and do. This begs the question: do we experience multiple qualia concurrently? My belief is that we experience them consecutively – it is just that our neuronal capabilities, our memories work at the speed of chemical/electrical neurons and we therefore can put together many qualia in what seems to be a single instant.

It should not then have escaped your observation that if indeed, the awe causing original inner quale is a duplicate of an automatically phenomenally conscious experience, that the duplication is a physical one (though as fully in-depth as the original phenomenally conscious one and therefore effectively phenomenal). This then pushes back the hard problem to be between a physio-phenomenal external quale and a physical inner quale. It is still a solution to the hard problem (pushed back one step) but it eliminates the contention that a physical to phenomenal transfer takes place fully inside of us (from a physical inner quale to phenomenal consciousness).

It means that our consciousness is in reality a <u>physical</u> based experience! It is the duplication of the physical inner quale, which had every aspect of the phenomenal experience coded physically into it. That is a counter intuitive statement since all thoughts and beliefs regarding consciousness is that it is phenomenally based. Not so, the phenomenal to physical is a transfer but it occurs from the external quale to the internal quale.

I was surprised to come to that conclusion; however, the logic seems to hold perfectly and explains a lot about what is really happening. It also makes sense from the standpoint that, inside us, only one type of realm operates, that of the physical or material realm. Where the realms overlap, integrate and transform is between the external phenomenal universal consciousness (qualia) and the internal material realm (our inner processes and consequently our consciousness).

This finishes these sections and, as regards my core belief, accounts for a mantra that says, "Everything is Qualia" – and all of that qualia results in a deeply rich painting.

Post-Postscript (Phenomenological Natural Capabilities)

The crux of my solution to the hard problem is my contention that it is our original reception of new objects (as a baby and child) that produces a state of Awe which allows for direct experiencing of the associated qualia and thus conscious phenomenal experience. Upon the occurrence of Awe, after the experience it is coded in association with that object or qualia. Subsequently, when we come across that object again, we match it to the original coded experience, receive this coding and thereby have a duplicate experience plus any added intelligence that we might have subsequently added to that object's experiential coding.

This theoretically works only if when we experience Awe, a direct phenomenal quale can be received by us directly – non-physically. Therefore, there would have to be an inner ability to receive direct phenomenal datum without any contribution or processing from a physical source. A direct phenomenally based ability to experience qualia, and then only in cases of Awe (first experiences with that object or qualia). What then, and where, is this ability and how does it work?

I readily admit that so far, I cannot say <u>how</u> this works, but I can indicate as to <u>why</u> it works that way. This would be due to the contention that cognitive processing filters preclude our natural ability to experience the phenomena directly (in whatever way that actually works). Once we have coded an experience or quale cognitively, that becomes the primary, and indeed, the only source of interpretation and reception. It is a barrier to our otherwise natural processing of things phenomenally. It is limited as to what it had coded and nothing more than what it had coded.

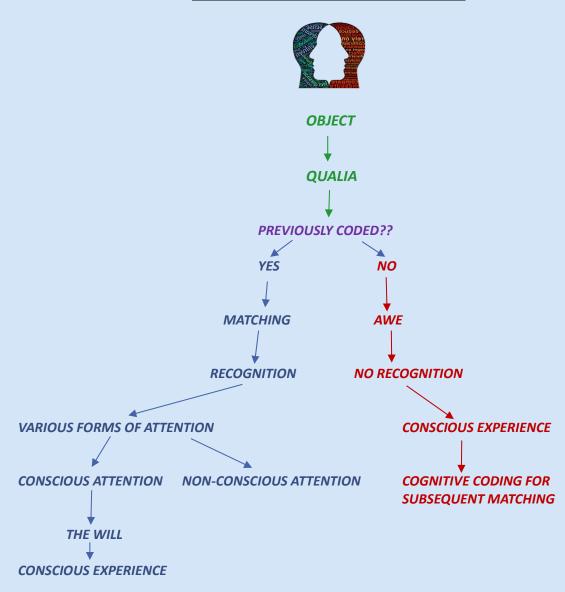
I am saying that without any cognitive filtering over-riding of our phenomenal abilities, we would purely directly experience qualia or objects (and psychological states). It means that we are born with the ability to only process objects phenomenologically, and as we go about coding and coding and coding cognitively, we lose, or better put, we over-ride that natural ability.

It is only then in cases of Awe that our physical cognitive processes are <u>suspended</u> and we revert to our original phenomenological capabilities. They are suspended due to the absence of any prior coding of that experience to match up to. That capability is the ability to directly receive qualia in our conscious attention, Will, consciousness. It's not that there is a special process for this, it's more that our cognitive abilities block and over-ride that natural phenomenal process. Recording and memory, which are originally blank, replace our basic, and possibly more primitive ability to process things

¹⁴ This means that without memory and cognitive processing, we have the ability, indeed, we have the automatic reception of conscious experience, without any mediating process. This would occur at the point of entry to our now non cognitive brains. Visually in the visual cortex, auditorily in the auditory section of our brains, etc. This indicates that phenomenality is a sensorily based effect, an effect of our sensory reactionary sensations. That reaction would take place from a multiple of areas within us, not only in the neuronal paths of the brain, but down to our external organs (like the heart) and appendages. We in effect would holistically "feel" consciousness. Or better put, consciousness is a result of the overall feeling construct of our perceptions.

directly with no linkage or transformation needed. It is the onset of coded memory and the filling up therefrom that creates the hard problem (of which I have laid out my theory for solving in this book).

PHENOMENOLOGICAL PROCESSING



DAVID CHALMERS

The Hard Problem

The question that David Chalmers posed to the world, which came to be associated with the "hard problem" was Why is there an inner life? The "hard problem", as defined, is that of the mind-body dichotomy.

This goes to the uncomprehend-able nature of why we have thoughts, ideas, concepts, and possibly most of all, sensory perceptions. I like to call this the phenomenal-physical dichotomy. Not only is the question, "Why do we seem to have a separation of mind and body", but, "Why is there the phenomenal in what seems to be an overwhelmingly physical world?

Chalmers points out that if one agrees that consciousness is a natural phenomenon, is of the natural world, only not in a physical way, and is therefore subject to natural laws, then there should exist a scientific basis or theory for them, even if we cannot arrive at one ourselves.

In my treatise, I contend that the scientific basis for consciousness lies in considering qualia as the basic building blocks of consciousness as well as how consciousness connects to a monadic energy source and how that source flows into consciousness.

Consciousness is a prominent part of nature, of the world and is ubiquitous throughout humans and likely other species. It would be odd if such a pervasive part of nature and the natural order, did not have laws that directed it and that it did not adhere to.

Just by the observation that there is a logicalness and order to our sensory perceptions, speaks of a set of laws that they are effects from. Even our "streams of consciousness", which seem to be chaotic and disconnected, have within them strings of comprehensibleness to them, bespeaking of an order and a reasoned process of causation.

Those laws are likely not too similar to the physical laws or laws from other domains (like space and time), they likely will be quite different and will reflect their origin which differs from other domains. Consciousness is therefore something that, though similar in some respects, is nonetheless at the edge of scientific discovery and scientific reality, since science, in most views, is only of the physical world.

This is exactly what I have said, that consciousness is from a 3rd dimension (Universal Consciousness), which although having certain similarities to the other two dimensions (Material and Spacetime), especially their inter-relatedness, has its own set of rules. This domain that I have posited is very much on the edge of scientific discovery.

Therefore, solving the problem of consciousness may be a scientific-like problem that can only be solved philosophically, especially since it apparently cannot be tested with physical means and experiments.

Of note though is the history of many scientific discoveries having been discovered through pure reasoning and logic (witness Einstein's thought experiments). Maybe phenomenal discoveries cannot be tested and proven by physical means; however, they may prove to be accepted theories, due to an overwhelming coherence with experience and even some physical processes, and thus become

signposts that lead the way to other truths. Maybe even finally a theory of everything phenomenal, or at least enough to satisfy man's curiosity and drive for understanding. This, in a nutshell, is the goal of philosophy.

I contended above that those laws would likely reflect and be in accord with their origin. But what is their origin then? It is my opinion and theory that there are three fundamental origins which exist ubiquitously in the universe, that were formed at the very beginning of the universe. These "fundamentals" are pervasive throughout existence, and that pervasiveness gives us a clue as to what they are, the nature of them. One of them, which is obvious to us is the physical, material dimension(s), the other two dimensions similarly show evidence of their pervasiveness and fundamental nature throughout existence. Those are space-time and the phenomenal realm.

Qualia

One of Chalmers speculations is that a theory of consciousness might involve a close relationship between consciousness and information. He goes on to cite pan psychism and questions whether a thermostat has experiences. He states that there is likely experience everywhere; wherever there is a casual interaction there is information, and wherever there is information there is experience.

Information in this view is the building blocks of consciousness. Note that "information" is not material, nor is it related to time. It is in my description the essential nature of qualia.

In my view though, Information itself is simply descriptive. It is missing that "border" quality of qualia or experience which sits at the boundary of materiality and phenomenalism. To be conscious is not simply to have a description of an object (or subject), which is what information is, the nature of consciousness is something entirely different and unto itself, whole and contained within itself. Although, it enables descriptive powers to be applied to it (information about it), its essential aspect is not description, is not just information.

Information would be better considered as a secondary aspect of qualia, one that is brought on through the interaction of qualia and cognition. The primary aspect of qualia is the direct transformation that has occurred from the existence of energy. Where there is energy there is spacetime, materiality and consciousness (in the fundamental form of qualia).

Information is to qualia as effect is to causation. That is; it sits at the boundary between the material (psychological or cognitive) and the phenomenal. It is the interactive aspect of the two dimensions. The third dimension, space-time, relates to these other dimensions in the form of location and duration.

Location is not a simple "where it is" concept regarding qualia and space-time. The essential aspect that space-time gives to qualia (or energy) is that of being ubiquitous as to location and as to time. Qualia cannot be located at a single point in space-time but must rather be located everywhere at once. It is this over-arching aspect of space-time that is an essential part of qualia. If it were otherwise, then the conscious mind could not access the specific qualia unless it was in a particular defined location in relation to where the mind was located. Qualia's connection with space-time enables it to be "available" always, everywhere and everywhen.

So, in the final analysis, information is <u>representative</u> of the building blocks of consciousness, but is not the actual building block itself – it is rather a part of the "bridge" between the three dimensions and therefore a bridge to our cognitive, though conscious, mind.

The Will

Causation, he states, has experience underlying it in the brain.

I believe that experience is the effect and not the causation. This is so because relevant information is being produced constantly with neurons firing and so on. On the other hand, it may be that the distinction between active and passive causation cannot be drawn at a fundamental level, in which case the two might be treated equally. I do not know the answer to this question, but there is an intuition that some sort of activity is required for experience. But this may not be true if experience is a direct and brute thing in and of itself, which I believe it is.

The crux of my beliefs is that it is Will, not action, that accounts for experience (consciousness). Possibly, Will has as a subset of action to it; this bears investigating; Is Will itself Action? Although you can have "activity" without the use of the Will; that type of activity is of the unconscious variety. An automatic triggering of behavior (action) does take place due to the effect of cognition, but in order to experience the interaction of the Will with qualia - a secondary aspect needs to be involved and interacting with that bridging. That secondary aspect comes from the effect of the application of Will with the cognitive causation of recognition. This application of the Will is what accounts for our identification of it as an experience. Recognition begets the identification, cognitively, of experience and it was the Will that caused that recognition through its controlled attention and interaction with qualia.

What I am saying here is the crux of the matter, the bridge and the creation of consciousness. When recognition occurs, it gives off its own qualia (the Bing of Roger Penrose's theory). That quale, that Bing, is what accounts for our experiential aspect of consciousness. Consciousness has a feeling associated with it. The "hum" in the brain when we are conscious. Recognition, or its qualia, is that feeling. So, it is Recognition's feeling effect, transferred to the Will through Conscious Attention that accounts for the phenomenally based consciousness. Consciousness is the phenomenal feeling of recognition, the phenomenal qualia given off from recognition as recognition's effect from memory's physical coding. It is the bridge.

But it is more than mere "identification". Identification, here again, is just descriptive and is the same as information. As such it is representative of qualia or experience but is not that qualia or experience itself – it is secondary to it.

The Will is what actually experiences qualia in a direct way. It does this by being the effect of the qualitative (qualia) causation brought on by an outside agency pulling from the inner qualia (that is; it is existence with causation). In effect, it "allows", through receptivity of the inner quale to interact with cognition, with our inner qualia (which is the effectual agent of behavior or action). For now, it is enough to simply relate Will to that of attention (though ultimately it is more than that).

Controlled Attention, with all its effects and abilities (which we will go into later) is the property of the Will (Will's aspect). As such, attention's interaction with inner qualia (which was from the initial external qualia that was processed into memory by our senses, results in experience. Attention by itself, without the phenomenal agent of qualia, is only a behavior, an action, an effect of cognition. But when interactive with qualia (like a moving billiard ball interacting with another ball at rest) it results in experiential awareness (experience). It is not the qualia that is experience and it is not the cognition or inner qualia that is experience, but rather it is the recognition of the interaction itself, the transformation, the cause and effect between qualia (cause) and recognition (effect), that results in a conscious experience. This is brought on by attention to the qualia – attention of the Will.

The reason it is able to do this is because each new exposure to an external quale for the very first time, mostly when we are baby's and then gradually as we grow up and are exposed to new things, new qualia, that first impression is one of awe. Being of awe the very first time we come across an awe-like perception of an external object, we not only code the physically transmitted phenomenal quality of the emanated quale object, but we code with it all our reactions to it – our conscious experience that happened along with it (emotions, heart rate, cognitive perceptions, etc.) directly into consciousness (through the Will still).

In that way, every bit of datum from our original experience is duplicated in memory as an inner quale, and as a duplicate, all aspects of the first conscious reaction can be called up again and experienced. One can say that this is still physical in a sense, but being true to the original phenomenal experience, it is in effect phenomenal itself – a perfect mirror.

So, it is then, in the future when we come across that scene or object again for the 2nd time (or 3rd, etc.), we can call up, through the recognition matching process, the exact nature of the consciousness that was directly transmitted to us the first time, with all its accounterments, all its conscious aspects, feelings and associated perceptions. A mirror image.

In this sense, it is the transformation between inner qualia and recognition (then through attention) that accounts for experience – the <u>transformation</u> is the boundary condition between the material and the phenomenal. It is a transferring of the inner qualia's essence to attention's cognitive ability, a cause-and-effect transfer from the phenomenal to the material. Therefore, cognition does play an essential part in experiencing or consciousness – it plays the part of descriptor of what is happening. It is that descriptor that allows our mind to record that something has occurred whose essence, whose cause, is from outside the functionality of the mind originally.

Note that you can either make the case that it was a physical to phenomenal transformation, if you look at it from the viewpoint of a cognitive inner quale (physically recorded) to phenomenal consciousness (through attention in the Will). Or, you can make the opposite case of a phenomenal to physical transformation if you look at it from the viewpoint of the original phenomenal aspect of the external quale getting transformed into a physical inner quale and then onto, through attention and the Will, our feeling that we are experiencing a phenomenal occurrence (even though it is at that point a duplication of a physical inner quale, mirror like, and thus physical also). Either way, the hard problem is solved due to a transforming from one realm to the other in order to have experiences.

It is the awareness, through attentive cognition, of the object that allows the reception of original qualia. In effect, our Will transforms a phenomenon (qualia) into a digestible material form –

cognitive awareness. It was controlled attention (the Will) that was the receiver of the information — the inner quale (which gets interpreted by cognitive recognition). On one side of this "bridge" was the actual inner qualia, on the other side (due to interaction, due to causation and effect) is the description, the recognition. Because we are describing the phenomenal in material terms, then we relate to it as an experience. It is a material representation of a phenomenal object, and since this type of representation does not involve the closed loop of cognition (which does not have experience as a part of it) it is thus processed as something on the border of the phenomenal and the physical — a class unto itself with its own "feeling" of recognition (Physio-phenomenal like space and time are). That "feeling" is our cognitively based inner quale which matches the outer quale received through our sensory apparatus.

'* See Author's Postscript on Page for a more detailed analysis of this

That feeling is the "Bing" of Penrose (Penrose called our "knowing that something happened" a "Bing") and thus the recognition, feeling and experience of consciousness. Consciousness is in this sense, the cognitive recognition of an entity within, that is neither functional (of cognitive functionality) nor ethereal. Its recognition takes the place of the inherent nature of the outside causation (qualia) by an inner matching quale. Therefore, there is no direct experience of qualia cognitively, there is the indirect, secondary recognition of its essence – its detail. Just like in the material realm, we can only know an object that has been once removed from its material form by the emanation of external phenomenal qualia. In that sense there are two transformations; one from external phenomenal qualia to a physically sensorily coded inner quale, and then another transformation from that physical inner quale to the duplicate phenomenal experience – we are removed from it – it is our experience that connects us to it.

Also, note that the external quale is considered to have both phenomenal and physical aspects (physical from its connection with the material object, and phenomenal in its emanation). Again, the salient point, either way you look at the external nature of that qualia, is that transformation takes place through you experiencing it (whether that be considered a physical happening or a phenomenal one). The hard problem is thus addressed.

The Will itself can be compared to a mirror. What is special about a mirror is that it takes from the external world appearances and qualities, receives these impressions and then causes them to continue to emanate onward. What is special about that process is that a mediating object (the mirror) can allow the flow of sensory information to proceed unmediated and in its original form.

The Will is like a mirror when it is being utilized to target its attention on our inner qualia. It will take appearances and qualities from the objective, external world, from the external qualia (like a mirror does) but instead of sending these on in an unadulterated, unmediated form, it instead translates that reception (recognition) into psychophysiological form and transfers, and thus transforms, its objective reality into an experience that perfectly reflects (like a mirror) the objective attributes (qualia).

The critique of this is the criticism that the Will, being of cognition, can only be intellectual, psychological, cognitive and therefore subjective and mediately removed from objective reality. But that contention does not ascribe to the Will one of its most powerful abilities – that of pure coherence to the external world through transformation of qualia.

What is "pure coherence" though? As religion proclaims, "We are made in the image of God". I would restate this as, "We are made in the image of universal consciousness". There is a universal, objective reality out there externally. The same elements that enabled the universe to exist, enabled not only universal consciousness to exist, but enabled our individual consciousness to exist – within the construction, over time, of our brain.

The brain is an evolutionary organ, and it has been formed by millions of years of evolutionary processes that adapted and thus cohered to the external world (Darwin's evolutionary process of natural selection and adaptation). In the final analysis, the brain consists of an amalgamation of internal coping mechanisms. These "mechanisms" exist due to their coherent psychological matching to the external world it exists in. Coherence is thus a sympathetic and unified relation to the outer world.

But more than this – we have something we call consciousness – individual consciousness. That feeling of self-awareness. Just like our physical mechanisms that cohere to the external world, our individual consciousness coheres to the phenomenally conscious world, the world filled with qualia. Our self-consciousness has evolved in accord with what we come to learn is "out there". That is the crux of coherence in this sense.

The Will, when it suspends cognitive judgement and diversionary thinking, receives in its purest sense the transformation of qualia. It is that "silent" receptiveness of the Will that equates to coherence with the outer and inner qualia.

The one underlying and constant clue about consciousness is what I call the "hum of consciousness". That is; after removing all psychological and cognitive subjective descriptions of effects and characteristics of our sensory organ (the brain), and after removing any cognitive functionality of our neurons – after emptying our brains of its functionality and those related functional effects – there remains a "feeling" (I call it a hum) – a feeling of existence, of being. That is the quality of our consciousness in its most pure and undifferentiated state. It is also the quality of the amalgamation of the constant and ever-present totality of qualia (that is; all qualia combined) that exists as the universal make-up of universal consciousness. It is the "white noise" of qualia.

In that state (remember we can't think or sense anything in that state) our brain is a perfect mirror allowing all sensory external data (qualities) to be received by it and experienced at once from our inner qualia. It is the pure experience of the external – or as close as we can come to it. Without the capacity to think or sense (remember we eliminated those in this example) we perfectly reflect, as coherent recognition, a pure objective external reception. This can be called full and perfect awareness (awareness being reception onto our conscious, reactive brain) – it is "the hum" we feel. However, since in that theoretical set of circumstances there can be no recognition (because all brain functionalities have been removed) there would be no experience of this theoretical nirvana.

This "reception" is a direct correlation, coherence and duplication of the qualia that the objective realm caused to be reflected and emanated. It is the closest we can come to a reaction of direct experience of the external world. The mediating factor between that external world and our reception, is qualia.

So, it is this unique ability of the Will that allows it to bridge the gap between mind and body (the hard problem) or in other words between mind and the external world. The Will can be used as a mirror of sorts.

Action & Attention

Chalmers entertains the possibility that there might be properties more fundamental than phenomenal properties from which the latter are constituted.

I postulate that those "more fundamental properties" are derivatives of energy itself. These are the most fundamental building blocks of consciousness. Regarding whether a thermostat has experience; it does not – simply because it has no bridge that would connect the qualia (heat in this case) to a recognition program (cognition). Functionality is there, but functionality is not necessarily cognition, nor is it experience. Cognition involves a more complex set of processes within – more than just a pointer reacting to heat.

Reaction (action) is a consequence of cognition, not cognition itself. Cognition causes action, but action does not always presuppose cognition. All cognitions produce actions, but not all actions are from cognitions. Note that an action that has been caused by a cognition can have a continuum of effects ranging from one simple reactive action to many secondary and tertiary actions that can continue to stem from the first reaction until these additional reactions fade away (in that case, the neuronal path fires multiple times, each one becoming instigating another associated thought, but nonetheless producing "ancillary" actions still. Also note that cognition's effect can be just simply the next cognition or thought (an action) – nevertheless, action always follows cognition, even if we are unaware of it.

Action is integral to consciousness as the previous discussion about the Will and its interaction with qualia points out. The action that is <u>attention</u> is key here to understanding the link, the cause and effect, between cognition and attention (Will). What triggers the Will? Actions, reactions and secondary or tertiary continuums of action are like a set of billiard balls where one is hit into another that causes collision (interaction) with another and so on until there are no more balls left to hit or interact with or no more force with which to continue hitting more balls.

The existence of these additional balls (action predicates) is created through memorized logic from past associations with a particular logically oriented cognition, or biological triggers (like survival, hunger, etc.). Attention is one of these "billiard balls" (one of the action-oriented effects), one of these consequential reactions, a type of effect from the cause of cognitive recognition. When though does Will or attention come into play? What triggers it?

Will comes into play, is initiated, when there is a biological and evolutionary formed need to react to a pre-programed set of logic that calls for possible protection, attentiveness to a possible danger (we must always monitor the world, which includes our own inner logical programs). It can also be triggered by survival programs like danger, hunger, fear, etc.

It is therefore, the necessity (survival-oriented concern) of attention, in order to complete the reaction program, that triggers the Will. Thus, Will or attention is a survival mechanism that exists in order to interpret and interact with the objective world (or at times with the psychological world). The

objective world can be a dangerous place to us, and even if the sensory input is benign, we are programmed to attend to it (just in case – again, an evaluating apparatus/process).

Note that all these discussions center on consciousness. But there are really two aspects of consciousness that bear discovery and investigation. One is; "Why do I have these inner experiences?" (Chalmers' "Hard Problem" – Why and how does experience exist? What is the nature of experience? (which I have addressed in this). The other aspect that bears investigation and defining is that of quality; Why does a specific quality exist (what is green?). What is its make-up? Though these are two separate concerns, they are intimately tied to one another. That is because, in the final analysis, all of consciousness is the inner recognition of outer phenomenon, and all outer phenomenon is made up of qualitative characteristics (called qualia).

It is noteworthy to note that the difference between Will and Attention is that one is receptive action (Attention) while the other (Will) is targeted action. The Will includes attention but attention does not necessarily include the Will, it will depend on what type of attention has been triggered. Awareness is a better intermediate term to use to differentiate the two different states of attention in that awareness involves attention but targeted attention defines only the Will. Awareness is not targeted – it is receptive even though awareness can result in behavioral action. Behavioral action is not necessarily targeted behavioral action, when it is, we call it Will.

Physics

There are various ways all this might be understood. The most straightforward, and the least adventurous, is to take the physical and phenomenal realizations of information to be wholly separate features, with no ontological link over and above a lawful connection and a sort of structural isomorphism. To get a better grip on this, I will consider one key way in which information can be seen as fundamental to physics.

This approach stems from the observation that in physical theories, fundamental physical states are effectively individuated as information states. When we look at a feature such as mass or charge, we find simply a <u>brute</u> space of differences that make a difference. Physics tells us nothing about what mass is, or what charge is: it simply tells us the range of different values that these features can take on, and it tells us their effects on other features. As far as physical theories are concerned, specific states of mass or charge might as well be pure information states: all that matters are their location within an information space (This sounds like what qualia is). This is reflected in the fact that physics makes no commitment about the way these states are <u>realized</u>. Any realization of these information states will serve as well for the purposes of a physical theory, as long as it maintains the correct structure of causal or dynamic relations between states (that is; cause and effect). After all, as long as the shape of these relations is the same, physics will look the same to our perceptual systems: we do not have access to any further properties of the realization in the external world,

That is an amazing conjecture. It says that just the understanding of the states of physics' components serves enough for us to comprehend physics and experience the physical universe – we need not be in direct contact with those components. This is the way qualia interacts with materiality. Likely – this is

a good characterization of how energy, monadic energy, reflects the entire complexity of the universe – through differentiation of its 3 realms and relationships between them and their ancillary elements.

Qualities

However, this is not in my opinion the case in phenomenological experience. Although we are once removed from what qualia actually is, through a secondary facet of information (recognition), as discussed above, without a direct access to qualia with no secondary intermediary, we would not be able to comprehend or experience qualia. Unlike his example of relationally equivalent reality that could exist in the physical world, qualia are not simply laws and relations; it is a specific something that requires contact and actual phenomenal existence in order to experience it. Though I do argue above that the mirrored description of it (inner qualia) can result in the experience of it. In that sense he is perfectly correct.

This sounds as if qualia are objects of sorts, albeit a phenomenological one. What of the fact that we can conjure up a sensation, such as green, simply by closing our eyes and willing it? There does not seem to be an actual phenomenal object in that case. However, in my theory there actually is. In actuality, when we do this willful conjuring of green, we are in reality tapping into an inner quale.

Qualia, or in this case the quality of green, actually exists everywhere and always, in the universal sense – this is due to its time-space component. Energy is of one unified field, that exists everywhere and everywhen, just as an electromagnetic field does. It is not that we have a representation of green within us, though there is that capability within our visual cortex and our inner quale – it's more the case that the quality, the qualia of it, is not in our cortex or anywhere else, it exists, in its original form in a phenomenal space outside of us, universally – a field so to speak. When we conjure up green, we are using our Will to link to qualia that was actually present at one time and has now become existent as an inner quale.

I have used this framework mostly to discuss simple perceptual experiences, such as color experiences. It is not obvious how one would extend it to deal with more subtle experiences, such as complex emotional experiences or the experience of occurrent thought. Can this extension be made?

Just because we might look upon different qualities as having various levels of complexity does not mean that the underlying qualia need be similarly complex. Each quale might very well be simple on its own and it's our subjective opinion or judgement that gives unto it a complexity that it does not inherently have. This is the case I believe. I believe that all quale has an equal complexity factor, and more so, that they are simple at their fundamental functionality, at their fundamental level.

Seemingly more complex forms of qualia, that is; emotions, also come from a cognitive cause. This takes the form of a reaction to an emotional stimulus. This could be an emotional reaction to a logical cognitive functionality or it could be a reaction to a desire. In either case, the same set of cause-and-effect actions and reactions takes place with one of the caused effects being the quale of that particular emotion (a sadness quale, an excited quale, etc.), or the emotion begotten from the cognitive functional logic that caused that desire or emotion. A chain of reactions is set off from the logical set that we associate with an emotion or a desire. Without the quale effect or sensation, we would have no sensation of that emotion – we would in effect be zombies. The chain of actions would

take place inwardly and functionally, but no <u>experience</u> of it would happen. A sad state of events would not result in the feeling (quale) of sadness.

A good question to investigate that he does not mention is ... Why is it that separate humans have the same qualia experiences? Is it the processing mechanism or something more fundamentally connected to the universal that accounts for the ubiquity of experiences?

It is precisely the ubiquity of qualia that deposits the identical effect in separate people (or likely an animal also). Thus, it does not mean that the quality of what we "see" or experience is identical. Since the totality of the experience is through a linking of the phenomenal qualia and our inner functionality (as bridged and recognized through the use of the Will and attentive recognition), any slight difference within us functionally will result in a correlate difference of the experience to the extent that there was a functional difference. So, depending upon the possible differences between two persons in their functional coding of qualia, there might be a slight difference in the quale output to recognition and then experience, or a difference in the coding of the inner quale – just as different people may have different visual acuity, etc. – an imperfect mirror. Although this may be too slight to notice (were we able to notice within another person what they see or feel). This can take an extreme version, as with synesthesia patients who may hear a sound upon viewing a color, etc. The trigger (the external quale) is identical, but the receptive functionality and thus the inner quale then recognition differs, in the extreme, in that type of case.

Quantum Mechanics

Chalmers goes on to ruminate about the connection between quantum mechanics and consciousness. He claims that quantum theory alone cannot tell us why consciousness exists.

That may be somewhat correct however it might tell us <u>how</u> it exists (probabilistically, wavelike, etc.).

He goes on to point out that the only remotely tenable criterion that has been proposed is that a measurement takes place when a quantum system affects some being's consciousness.

There would exist a large-scale superposition if there is no consciousness in the vicinity. Before consciousness evolved, the entire universe was in a giant superposition, until presumably the first speck of consciousness caused its state to suddenly collapse. This may sound crazy, but it is a direct consequence of the only tenable literal interpretation of the principles of quantum mechanics. I hope this helps to bring out just how strange quantum mechanics is, and how serious the problems posed by its interpretations are.

This is interesting in that it could follow that if a "speck of consciousness" was <u>coherent</u> to qualia in relation to what was being measured (qualia therein being more than just applicable to individual consciousness but more so applicable to all material objects), then for instance the <u>coherence</u> to a green emanated quale would be causing the collapse and therefore the manifestation in the physical world.

However, he goes on to state ... If consciousness is associated even with very simple systems, then on this interpretation collapse will happen at a very basic level and very frequently. This is inconsistent with the physical evidence, which requires that low-level superpositions often persist un-collapsed for a significant time.

However, if that significant time is a function of not yet being coherent, then it would make sense why collapse doesn't just immediately happen to simple wave functions at the beginning of their evolution. Waves might subsist until a coherent situation arises. So, waves made up of all the colors may be in superposition and when this wave integrates with a 100% probabilistic green object, the collapse of the wave occurs at the green wave aspect and green then manifests. In addition to that type of function in the universe, when we, on our own, conjure up the color green, we inwardly have made a decision process to do so and that decision is what collapses the wave to become green in our awareness. The decision, being of the Will, bespeaks again of the Will being the bridge to the phenomenal experience – the Will collapses the superposition qualia in this type of "quantum" case.

More generally, the whole process of collapse sits uneasily with the rest of physics. Taken literally, it is an instantaneous, discontinuous, temporally asymmetric, nonlocal process that is entirely unlike every other process that physical theory gives us reason to believe in. It seems odd that such a strange process should exist alongside the straightforward, continuous, temporally symmetric, local Schrödinger equation. Indeed, compared to the elegance and power of the Schrödinger equation.

Perhaps though those qualities mentioned here are the exact characteristics of consciousness. That is; the fundamental form that qualia take is one of straightforward, continuous, temporarily symmetric and local.

There is something very awkward about the idea that the world has two such entirely different sorts of dynamics at its basic level. But I submit that this would not be so when looking at the differences between the dimensions of space, time and consciousness – energy's facets will differ substantially, yet have connections to each other, in this case phenomenologically.

Chalmers asks why it is that superposition, on another viewpoint, is everywhere. Why then does the world appear discrete?

My answer to this is that it is discrete due to coherence because coherence itself is discrete. Remember, the world "appears" only after a coherent collapse. When all there is, is superposition, then no coherent collapse has occurred and no "appearance" manifested.

<u>Fundamental Building Blocks</u>

Returning now to the question of the make-up of consciousness and that of qualia, he states; We can say that a mental state is conscious if it has a qualitative feel —an associated quality of experience. These qualitative feels are also known as phenomenal qualities, or qualia for short. The problem of explaining these phenomenal qualities is just the problem of explaining consciousness. This is the really hard part of the mind-body problem. Why should there be conscious experience at all?

This is my major premise; we maintain that qualia are the characteristic of the building blocks of consciousness (universal consciousness) in relation to our individual consciousness (through our Will). So that, there is conscious experience because we tap into qualia, and by so doing we experience it. The fact that there are qualia in the external world, and the fact that we can experience it accounts for why we are conscious. It is a thing of itself. The mind-body issue is solved by the external qualia duplicating all its phenomenal qualities as an inner quale. You could just as easily have asked, "Why should there not be conscious experience at all?"

What is difficult to comprehend is that an inner quale doesn't necessarily have to be phenomenal in order to duplicate the externally caused quale – it just needs to duplicate all of the external quale's associated characteristics (or those that apply to our individual qualitative experience). This can be done cognitively by exactly reproducing or re-documenting the original quale's characteristics.

Let's say, for instance, that an external green quale had a certain rod and cone aspect or effect in the experience it produced from the original green quale experience (that is; originally, for the first time it ever was come across, it had been experienced through a reaction of awe and reinforced each time thereafter). Let us also say that the external green quale produced a certain emotion — happiness for example (this is not a literal example). Then if the coding, into an inner quale, of the firing of the rod and cone neurons were related to those actually fired rods and cones, and the various physical characteristics of "happiness" were coded in neuronal pathways for those physical responses, into that inner quale also (faster heartbeat, flush of the skin, etc.). Then the calling up of this inner quale, with all its physically mirrored neuronal paths, when coming across an external quale, will produce a duplicate of the original phenomenal experience. The inner quale might not technically be phenomenal, since it was due to physical neurons firing, but since there is no difference between the two quale's, it solves the hard problem.

He goes on to say; And we would like the theory to explain how it arises, so that the emergence of consciousness seems intelligible rather than magical. In the end, we would like the theory to enable us to see consciousness as an integral part of the natural world. Currently it may be hard to see what such a theory would be like, but without such a theory we could not be said to fully understand consciousness.

Yet, this is the same case as it is for space, time or materiality – but we do not question what they are. I guess that is because consciousness has such a personal attribute to it (unlike space, time or materiality), an "investment" of our-<u>selves.</u> Therefore, the search for what consciousness is seems to take precedence over a search for what space or time are. We seem comfortable in assuming space, time and materiality are simply a priori entities and background givens, but not so comfortable in leaving the mystery of consciousness alone.

The fact is that with any fundamental building block, whether that be a quark or a segment of time and space, we generally cannot reduce these to a theory of what they actually are and where they came from. This is why the more we break something down (to atoms, then quarks, etc.) the more we can further break it down, until eventually we are precluded from experimentally going any further.

It is also a characteristic of anything fundamental that they cannot be understood from a reductionist standpoint. They are fundamental, have no prior cause, and thus do not lend themselves to natural theoretical understanding. Once we come to the most indivisible part, we can no longer find any

constituent to it and therefore cannot develop a physical theory of what that is. In this case, the fundamental part is energy, and beyond that is the geometric effect upon potential energy. But as to a theory of what potential energy actually is – we will forever be silent. This is the same for energy's derivatives – space-time, materiality and <u>consciousness</u>.

Perhaps consciousness is fundamental and non-reducible and like all fundamental non-reducible entities, cannot be understood from a discreet and logic-oriented vantage point. Perhaps consciousness does not lie in which qualia is being experienced, but rather in experience itself with all the other qualia being subsumed by an experiential non-reducible, discreet reality. Experience itself as what is fundamental.

Psychological vs. Phenomenal vs. Physical

He poses the question; What is mysterious is why that state should feel like something; why it should have a phenomenal quality? Why the causal role is played and why the phenomenal quality is present are two entirely different questions. <u>The functionalist</u> analysis denies the distinctness of these questions, and therefore seems to be unsatisfactory.

However, looking at the opposite side of functionalism, perhaps <u>all</u> experience, including casual relationships to behavior, are stimulated and even carried out by some form of qualia. Therefore, the "choice" to go out in the rain would not be based on casual motivations of desire or enjoyment, etc., but rather would be in relation to a "feeling" and such feeling resulting in a desire and then casual behavior. Therefore, qualia are the progeniture of all mental states including those that account for behavior.

Conceivably, some deep analysis might reveal a fundamental link between the phenomenal and the psychological, but this would be a nontrivial task, and is not something to be accomplished by prior stipulation. To assimilate the phenomenal to the psychological prior to some deep explanation would be to trivialize the problem of conscious experience; and to assimilate the psychological to the phenomenal would be to vastly limit the role of the mental in explaining behavior.

This might be semantics though. I believe I have revealed the fundamental link between the phenomenal and the psychological, as discussed previously. The deep explanation is revealed to be the three facets of energy and how they manifest in the universe, both phenomenally and materially as well as the fact that psychological states carry with them qualia.

The "feel like something" Chalmers asks about above is brought on from the original contact with that particular quale, where awe was the operative attention. Awe, automatically results in an experiential occurrence in our consciousness, and even though that was phenomenal and psychological – it still had certain particular facets and aspects to it that could be coded physically as the original inner quale. So, when awe happens, there is both the experience (the direct, brute response to the external qualia) and the coding of that experience. There is both phenomenality and physicality occurring even though it is psychological emotions or such.

Mathematically is would look like the following:

External Quale (E) has the following characteristics – A, B, C, D, E and F
Our internal capabilities (I) have the following it is able to code and neuronally fire: C, D and F

GIVENS:

The external quale (E) emanates all of its characteristics.

We pick-up, through Awe, and experience (through neuronal pathway firings, as well as code for the future) only C, D and F

C, D and F are therefore both a phenomenal duplication and a physical memory recording.

SO,

IF E contains the set (A + B + C + D + E + F) AND I contains the set (C + D + F) THEN E (CDF) and E = I in relation to CDF

THEN IF E = Phenomenal (PN) and Physical (PY) THEN I = PN and I = PY

I then can "feel" PN just as E could emanate PN through the emanation of CDF – even though E also emanates ABE which I do not pick up (is not part of the set that is I).

Regarding both psychological and phenomenal states, he asserts: ... having both a phenomenal and a psychological component. Pain provides a clear example. The term is often used to name a particular sort of unpleasant phenomenal quality, in which case a phenomenal notion is central. But there is also a psychological notion associated with the term: roughly, the concept of the sort of state that tends to be produced by damage to the organism, tends to lead to aversion reactions, and so on. Both of these aspects are central to the commonsense notion of pain. We might say that the notion of pain is ambiguous between the phenomenal and the psychological concept, or we might say that both of these are components of a single rich concept.

And this is what we set out previously – that the integration and linking, and recognition that occurs, through the Will connecting the phenomenal quality and the psychological functionality is that single rich concept. With that linking of the phenomenal also comes the adding to that link the physical/psychological aspects. Yet, it should not be over-looked that only one of these concepts, the phenomenal, causes an experience. The other, though key in identifying that experience, in reflecting on it, in reacting to it, etc., is not the experience itself. And thus, attributing them both to a single rich experience is somewhat lessening the "richer" importance of the phenomenal aspect. It is the experiencing of pain, not the understanding of it, that matters most.

He continues; When we want to be clear, we can simply stipulate whether it is the psychological property, the phenomenal property, or a combination that we are concerned with. Still, some of these dual concepts lean more strongly toward the phenomenal, and some lean toward the psychological. Take the concept of sensation, which is closely related to the concept of perception and which also has both phenomenal and psychological components.

Emotions have a much clearer phenomenal aspect. When we think of happiness and sadness, a distinct variety of conscious experience comes to mind. It is not quite obvious whether the phenomenal

aspect is essential for a state to be an emotion, however; there is clearly a strong associated psychological property as well. As usual, we need not make any decision on this matter. We can simply talk about the psychological and phenomenal aspects of emotion, and observe that these exhaust the aspects of emotion that require explanation.

This is true; however, it is noteworthy that a key assumption to this line of reasoning is that these aspects (in this case emotion) need explanation as the primary completion of the "full" experience. That kind of thinking leads one to tend to place functionalism on the same level as phenomenalism when considering experience (though Chalmers does state that there can be varied balances of the two states). That is mis-led thinking though, because one must keep in mind that the primary and over-riding aspect of an <u>experience</u> is that of the phenomenal qualia of it – adding to this experience an explanation or further cognitive associations does not more fully form the experience itself – it only serves to mentalize it. Functionalism misses the main mystery of the hard problem and by using it as parcel to experience it tends to mis-represent it. There are separate functions that account for the phenomenal and the separate psychological aspects of emotion – one driving a functionality (psychological) and the other causing a phenomenal qualitative recognition (experience).

But Chalmers goes on to agree with me; Some would argue that this leaves something out, and that something over and above the relevant sort of psychological process is required for belief. In particular, it leaves out the experiential aspects of believing, which some have argued are essential for anything to count as a belief. For example, Searle (1990a) has argued that the intentional content of a belief depends entirely on the associated state of consciousness, or on a state of consciousness that the belief can bring about. Without consciousness, all that is present is "as-if" intentionality. "As-if" being quite inferior to "As-is".

But then he goes right into, again, the compromised view that I do not subscribe to when he states; Intentional states, such as desire, hope, and so on. All of these states have a psychological and a phenomenal aspect, and we need not legislate which is primary, although a strong case might be made for a psychological analysis (Actually, a stronger case would be made for the experiential phenomenal aspect). What counts is that there is no aspect of this state that outstrips both the psychological and the phenomenal (with perhaps a relational component thrown in). Psychology and phenomenology together constitute the central aspects of the mind.

Although greenness is a distinct sort of sensation with a rich intrinsic character, there is very little that one can say about it other than that it is green. In talking about phenomenal qualities, we generally have to specify the qualities in question in terms of associated external properties, or in terms of associated causal roles. Our language for phenomenal qualities is derivative on our non-phenomenal language. As Ryle said, there are no "neat" sensation words.

When we learn the term "green sensation," it is effectively by ostension—we learn to apply it to the sort of experience caused by grass, trees, and so on. Generally, insofar as we have communicable phenomenal categories at all, they are defined with respect either to their typical external associations or to an associated kind of psychological state.

This I find to be the opposite "concern" that would be more applicable to this study of phenomenal vs. psychological, or mind vs. body. He is saying that without a psychologically based language with

which to interpret experience, then such experience is lessened and missing their richness. He goes on here to say that we depend upon our psychological associative abilities to make logical sense of our experiences. I find that this may be somewhat true from a cognitive vantage point, however, the whole purpose of solving the mind-body problem is not in coming to terms with the cognitive basis for thinking about an experience, it is the mysterious ability to experience outside of the mind, bereft of cognition and logic. So, to talk in terms of the fuller "need" for language and logic to understand experience is a circular argument in that; we think about our experiences and thereby come to understand them. This is a closed loop and says nothing about the overwhelming contribution from the actual experience itself – brute and direct.

For me, the mind-body issue comes down to the following query; What is it that is not of the mind but is parcel to us? It's not to differentiate and explain the separate characteristics of mind and then of body, of the physical and then the phenomenal. We know the body and the physical quite fully. It is to investigate into the mystery of what the phenomenal is. Ascribing equal merit to both the physical and the phenomenal in the investigation of experience is over attributing one contribution (that of the physical) and under attributing the other (phenomenal).

Then though, he goes on to contradict himself and effectively to say exactly what I said above; The division of mental properties into phenomenal and psychological properties has the effect of dividing the mind-body problem into two: an easy part and a hard part. The psychological aspects of mind pose many technical problems for cognitive science, and a number of interesting puzzles for philosophical analysis, but they pose no deep metaphysical enigmas.

The phenomenal aspects of mind are a different matter. Here, the mind-body problem is as baffling as it ever was. The impressive progress of the physical and cognitive sciences has not shed significant light on the question of how and why cognitive functioning is accompanied by conscious experience. progress leaves the question of conscious experience untouched.

He continues; The hardest part of the mind-body problem is the question: how could a physical system give rise to conscious experience? We might factor the link between the physical and conscious experience into two parts: the link between the physical and the psychological, and the link between the psychological and the phenomenal. As we saw above, we now have a pretty good idea of how a physical system can have psychological properties: the psychological mind-body problem has been dissolved. What remains is the question of why and how these psychological properties are accompanied by phenomenal properties: why all the stimulation and reaction associated with pain is accompanied by the experience of pain, for instance. Following Jackendoff (1987), we can call this residue the mind-mind problem. Current physical explanations take us as far as the psychological mind. What remains ill understood is the link between the psychological mind and the phenomenal mind.

I agree with all that except that he seems to put psychological reactions and processing of psychological impressions ahead of the experience of pain itself. This is reversing the order of cause and effect, or at the least it is not giving due to the importance of the order of cause and effect. The cause of any psychological reactions is the actual phenomenal experiencing of the pain – the psychological reactions are the effects. It is important to know the correct order because it is the identification of causation that leads us to the discovery of the building blocks of a certain reality (in

this case phenomenal reality, consciousness's reality). Knowing the building blocks is the paramount step in understanding that reality. Focusing on the effects tends to obfuscate the study.

But he finishes with; In later chapters, I will argue that the link is an extremely strong one and that the factoring strategy is valuable in approaching the mind-body problem. If so, then understanding the link between the psychological and the phenomenal is crucial to understanding conscious experience.

Though posing an investigation on this egalitarian basis (the combined holisticness of the psychological with the phenomenological) is certainly an important study, I think it is more important to keep our eyes on the key element that draws us to study this – the phenomenal aspect and its "weirdness" in our cognitive understanding (or better put; our non-understanding). That is the true question and issue at hand.

Attention

In the next section Chalmers discusses the concepts of attention and awareness. These are important areas for study, if for no other reason than in Chalmers' theory, awareness is a substitutive concept for consciousness, and in my theory, attention is the key concept for the Will and thus for the link between the psychological and the phenomenal, the mind and the experience.

Before getting to Chalmers comments, I want to point out a few concepts from my own viewpoint about attention and awareness. The subject at hand concerns the linkage between the physical-mind world and the phenomenal-qualia world. That linkage being of the form of attention and awareness (depending upon whose theory we are discussing). Linkage is an interesting concept. In general, the nature of linkage is that each "side" of the link contains an element of the side it is linking up to. For example, take a male into female link-up, the contra distinctive form of the male hook-up is the female form and vice versa – they fit together and have elements of each other (even though that element is in the form of an opposite). Other linkages have the same dynamical form, a key and a lock, a car hook and a trailer hook, etc.

It is ironic that is the case of attention or awareness and phenomenal or physical linkage, that it bears no different form of shared elements like the examples given above. The irony is that, in Chalmers' description of how this linkage works he posits that awareness is the linking agent that connects the physical (or psychological) world with qualia (or the phenomenal world). Here, awareness, though a part of our mentality, is a phenomenal agent or effect of the physical mind and it is linking together the phenomenal qualia to the physical mind thus producing consciousness (the phenomenal in the physical body). So, the link is one that goes from a physical object (the brain) and utilizes a phenomenal based agent of its own making (awareness being of the mind) and links this up to the phenomenal (qualia) producing consciousness. Psychological using phenomenal to access the phenomenal.

In our theory it is not awareness that is the link but it is attention (the Will) that is the linkage. Here we have again a physical or psychological object connecting to a phenomenal one (qualia) by using a phenomenal agent of its own making (inner qualia). These dynamics then are rendered more likely due to their similarity with the nature of linkage in general (as discussed above where keys fit locks, etc.).

Attention - we often say that someone is conscious of something precisely when they are paying attention to it; that is, when a significant portion of their cognitive resources is devoted to dealing with the relevant information. We can be phenomenally conscious of something without attending to it, as witnessed by the fringes of a visual field (or by Awe). I would argue however that if we are attentive to (see) the fringes of a visual field then we are attending to it, and if we are conscious of it then we are attending to it.

He seems to be saying that attention is not always or even primarily responsible for consciousness. Instead, he states that we just use attention as a descriptor of consciousness. He cites non-attention on fringe impressions in the visual filed as proof of this. But as I said above – this doesn't hold true.

I believe that although this is an interesting point about attention, my belief is that we can be unconscious of our "auto pilot" use of attention with all impressions of qualia, whether we have recognition to that qualia or not. Attention operates whenever qualia is present, which is how qualia enters our physical sensory apparatus, and it is recognition that accounts for our awareness of this phenomenological process.

It is not the awareness that is consciousness itself, rather it is the <u>brute</u> transfer of qualia's characteristics, through the Will/Attention operating upon an inner duplicate quale (whether we are aware cognitively of that mental initiation of it or not). Awareness, is the receptive <u>cognition</u> of the actual experience.

Here is an example of my theory:

- 1) An object emanates its quale aspect onto our sensory apparatus (like the retina, auditory center, etc.).
- 2) If we are not attending to it then it is recorded on our visual cortex (or the like) but we have no awareness or recognition of it. For example; we drive and many things enter our vision, but so much of the input is not conscious in us because we did not utilize our attention to it and therefore no awareness occurred.
- 3) When the emanation of the quale has a certain level of "importance" to us of some nature (see previous discussion on this topic of importance levels, needs and evaluation and how they work), we attend to it (utilize conscious attention or the Will) and the experience happens which we are aware of through the physical process of recognition of the inner mirrored quale. Here it was this third happening that accounted for and was responsible for consciousness the targeted attention caused the linkage to occur as a <u>cause</u> bringing about conscious perception as its effect.
- 4) Awareness or recognition then occurs (being the effective agent of attention i.e.: cause and effect) and we react to this within our cognitive process either resulting in action or simply recording it with our neurons.

So, the order is; The objective Quale aspect, coupled by Attention (or you can reverse this and consider it attention coupled by qualia), then Recognition, followed by Action or Recording (which includes memory) and Consciousness - also see previous discussion about the Will and attention concerning this as well as about awareness.

In Chalmers' schemata, the order is; Qualia, then Awareness (which is consciousness according to him) and then he is silent as to what happens after awareness. So, my contention is that awareness is a phenomenologically based <u>receptive</u> agent of cognition, while attention is an <u>active</u>, targeted agent of cognition and is always active (though not always free of competing cognitive inputs). Once again, for Chalmers, attention is just a descriptive word.

Awareness can be broadly analyzed as a state wherein we have access to some information and can use that information in the control of behavior. One can be aware of an object in the environment, of a state of one's body, or of one's mental state, among other things. Awareness of information generally brings with it the ability to knowingly direct behavior depending on that information. Though one can be "passively aware". This is clearly a functional notion. In everyday language, the term "awareness" is often used synonymously with "consciousness," but I will reserve the term for the functional notion I have described here. I call this attention, but that seems to be just semantics.

In general, wherever there is phenomenal consciousness, there seems to be awareness. My phenomenal experience of the yellow book beside me is accompanied by my functional awareness of the book (also accompanied by attention to the book, again; awareness is passive, I believe, while attention is targeted), and indeed by my awareness (and attention) of the yellow color. My experience of a pain is accompanied by an awareness of the presence of something nasty, which tends to lead to withdrawal and the like, where possible. The fact that any conscious experience is accompanied by awareness (through attention) is made clear by the fact that a conscious experience is reportable. If I am having an experience, I can talk about the fact that I am having it. I may not be paying attention to it, but I at least have the ability to focus on it and talk about it, if I choose (that is semantics I believe). This reportability immediately implies that I am aware in the relevant sense. (that you attend to it in the relevant sense). I think that there are many conscious states that are non-reportable precisely due to the fact that they are in the little understood phenomenal realm. For example: awe.

I don't agree with the above. I see that as only true when awareness is accompanied by attention. Though he considers these states (awareness and attention) as psychological and not phenomenal, I see that singularity as not necessarily true. Attention has the qualia of these experiences as progenitures of the ability associated with recognition or awareness. This means that the "feelings" brought on by attention themselves are in the form of qualia (have a specific quality). That without that qualitative experience through attention, we would not be aware (and could not "report it"). Here again is the concept that qualia are in everything that constitutes consciousness - we just do not always recognize it or define it as that and instead we define it as a psychological functionality.

In addition, his contention that all conscious experiences are "reportable" does not address the case of the non-reportability in the case of Awe. The nature of awe is that it is not reportable, that it is unique to our experiences. It's not that we can't report that there was an awe causing tornado, we can, it's that we cannot report the feeling or the experience we had. If we were indeed able to report the experience then it would be from conscious attention, not awe. True awe is non-reportable. I'll go one step further; green, the quality that is green, is not reportable – as are numerous qualities.

Morality

According to Moore (1922), nothing about the meaning of notions such as "goodness" allows that facts about goodness should be entailed by physical facts. In fact, Moore claimed that there is no 60

conceptual connection from natural facts to moral facts, where the natural may include the mental as well as the physical.

As for my theories about moral issues – see my book, "Mirrors" and its detailed explanation concerning the true nature of morality, good vs. evil, etc. That theory not only posits that "the good" or "moral" are connected to natural facts, but indeed, that it is the crux of my theory. To describe this theory in a nutshell; it is the correlation, or the coherence with energetic waves, which quantumly are Schrodinger wave-like constituents of moral effects from pure energy related causes, such coherence being the most efficient path of energy. This is an objective morality (and natural) and does not reflect different subjective opinions of what is moral or good. I contend that coherence and the path of least resistance of energy accounts for moral and aesthetic characteristics and choices. 15

¹⁵ Here is the exposition on morality from "Mirrors":

QUANTUM MORALITY

Pythagoras considered that the make-up of the universe was in harmony with what he called "the spheres". Although we are not sure what he ultimately meant by "the spheres" we can say with high confidence that the spheres were rooted in the "heavens", which he considered eternal and set. We too see the make-up of the universe like this, only we consider existence and the rules of the universe as coming from Energy and continuing in the evolution of man. Within this lies the roots of morality.

One must, for a minute, put away their description of morality as coming from man, as not having a cause itself that creates it. The cause we postulate is from the inherent rules of Energy and of quantum processes. First, we'll look at energy and ask the question, where or how does morality come from energy? This will lead us to two forms of morality, both of which have the same effect, the same culmination. But first, we look at the nature of energy and how it correlates to morality.

The two inherent aspects of energy's states are curvature and flatness. Yet they both wind up in the same place. With flatness, there is nothing that can cause an effect to proceed from it, it is completely neutral or benign, it is nothing. On the other hand, infinite curvature (toward a singularity) results in infinite mass, and once again, at infinite mass, nothing can cause an effect on it, it is at that point also benign and nothing. So, if we go no further than this, morality would ultimately be benign and have no set of imperatives, it would not matter (no pun intended).

Yet energy, from a curvature (which by the way is essentially just a different form than flatness), creates matter. A related effect of this creation is a specific set of rules that dictate the behavior of matter. Those rules exist within a probability wave of various possible outcomes, which are dependent upon an observation or interaction with that wave. The outcome is determined by probability, with the most likely probabilities having the greater chance of manifesting. This quantum process filters down throughout all physical occurrences. It is our contention that it also manifests in the phenomenal realm, in non-physical occurrences as well, like morality.

This is the case with moral decisions. Each course of behavioral action, each decision to be made, has its own probability wave of possible selections, its own variety of actions and choices. What dictates the make-up of that wave, what dictates what probabilities exist in the various choices, is based on the related actions that came before it, as well as patterns of action (or behavior) – they are in what's referred to as a "superposition" The observation, so to speak, that collapses the wave into being, is caused by the Will. Will, as stated before in this is;

"... an overall force of consciousness that is partially learned (evolved) and partially biological (rooted in physicality). It is a derivative of consciousness and acts like a muscle. It is a muscle that creates decision, decisions that have partially been learned and that are partially biological and patterned The Will is not quantum, the choices are in the probability wave, but the action of flexing the Will renders the observation that is made, and therefore the choice that is made from that observation".

But what is the basis for the Will's decision? We postulate that the basis is in the inter-relatedness of past probability wave outcomes, as well as a probability wave of future outcomes, all of these inter-related and forming a decision that can be 61

<u>harmonious</u> with the inter-related past and future possibilities, or conversely can be non-harmonious (coherence or decoherence). Harmony in these cases reflects the steepest section of the probability wave, not a subjective judgement, and the path of least additional waves (coherence). This is because decisions of the past, ultimately form a steep interrelated (superposition) probability wave in the present.

Take a couple of examples, one with a lesser degree of morality and the other with more of a degree of morality. Say you are walking toward a person and if you do not veer off your course you will either bump into that person, or force that person to suddenly have to move. The steepest part of this probability wave would likely be the choice to change direction. But why? Why do we mostly choose against rudeness as opposed to common courtesy – is it a moral choice? Based on past probability waves, we are patterned to avoid collisions, and we are also reluctant to be rude. Rudeness or collision has often in the past resulted in other problems, other probability waves, while courtesy allows the <u>least additional probability waves</u> which would need further addressing (in Buddhism this is called karma). Morality, decisions, evolution itself is most efficient when the least additional waves are produced as a result of actions. The evolution of energy, and energy in general, always seeks the least resistant path, the straightest path, the lowest energy consumption and morality seeks the least resistant path also, as a product of causing no further probability waves.

This isn't overly a subjectively moral choice as much as it is a physical one, nevertheless it is rooted in the Law of least
resistance, the least additional probability waves. The basis for this law is that each wave utilizes a certain amount of energy, and although energy is not lost due to the production of additional waves, it is nonetheless not efficient. Energy will always take the path of least resistance – it is maximally efficient. Religion would phrase this as "God is perfection". So, in this case it wasn't a subjective value of morality that caused the reaction, but rather a physical law of energy utilization – a very non-moral, objective like cause.

Another example of a more moral type of a choice is as follows. Say you are standing in line behind a person at the bank and he accidentally drops a fifty-dollar bill. Immediately a probability wave forms dealing with whether or not to keep it or return it to him. From our subjective outlook on morality, it's obvious that the moral thing to do is to return it, for many consequential reasons. But what about from a quantum point of view? The path that produces the least additional probability waves is the one that has the money returned (not returning would likely (high probability) make one have to deal with guilt, lies, nervousness at getting caught, etc.... more probability waves). The choice to return it therefore will be the steepest part of the probability wave and the one that is then most often chosen. It has the least additional waves because of consequences, or better put, because of the number of effects it causes (and thereby utilizing additional energy).

Even though it is partially fear that instigates this behavior (fear of getting caught, fear of guilt, etc.), just because fear is thought of as a negative emotion, doesn't mean that it doesn't have its positive usefulness. In this case, it aids in portraying the possible additional probability waves inherent in a considered action.

Again, this brings up the quandary of free will. If decisions are ruled by statistical probability, doesn't it take away from free will? Not if it is the Will, that selects what part of the wave to manifest, to choose. But where then is the "probability"? The probability is the set of possible choices, with the most possible choice (the addition of the least additional waves) being the most prevalent. The Will still makes the choice (observation), it's just that the Will most likely chooses to avoid additional waves, and it's the choice to avoid additional waves that is the "moral aspect" of it. Morality follows the efficiency of energy utilization. These two views on morality, one based on a value judgement and the other based on the least waves rule – the most efficient path, are both valid in terms of the nature of the investigation; one based on societal values, the other based on physical, quantum rules. Which begs the question, "Does societal values come from, are they caused by quantum rules?" – we think the answer is yes.

So, in a sense; morality is efficiency. It is the best utilization of energy. We consider it quantum, in spite of the fact that the Will intercedes in the observation. This is because it is made, not only with a probability wave, but as the product of many prior waves (superposition). The choice is a product of the entanglement, superposition and culmination of many of the probability wave's past manifestations. This is the case with all of physical reality, as there is no such thing as a single, non-dependent probability wave – they are all in a superposition state. All waves are entangled with the other waves that preceded it (superpositions). The probabilities themselves are based on the various types of energy utilization, with the most efficient having the greatest probability due to the least resistant path that energy takes. Therefore, morality is not subjective, it is quantum and is energy related and is natural.

The above excerpt is continued on this page.

These antirealists argue that because moral facts are not entailed by natural facts and are not plausibly "queer" further facts, they have no objective existence and morality should be relativized into a construct or projection of our cognitive apparatus. The same strategy cannot be taken for phenomenal properties, whose existence is forced upon us.

Although I agree with the spirit of what Chalmers says here (that of morality being forced upon us and thus objective) – the coherence with physical energy waves is precisely entailed by natural facts, and thus, objectiveness is that nature. His considering morality as a phenomenally objective thing is incorrect though in that energy waves are physical. As far as being forced upon us- they are not, they are probabilistic and can manifest in any construct including non-moral forms. It is only through coherence with the most efficient wave shapes that we act and believe in conjunction with an absolute morality. But again, my book "Mirrors" has a very full exposition of this subject that is worth looking into (see footnotes above).

As regards "aesthetics" – they too obey the path of the least resistance of energy waves, but those paths may differ according to the person (they are initiated by a cognitive process) and are thus subjective, which is brought about by different histories, different super-positions (i.e.: experiences) which affects the shape of the energetic wave and thus the least resistant path.

Therefore, aesthetics is open as to judgement and absoluteness though aesthetically pleasing is a function of certain harmonics as is music, and thus is a priori determined, as is then the path of least resistance. What can vary is the particular harmonic preference as determined by the individual.

But if it is discordant with harmony then it still will not be aesthetic. Harmony itself requires, therefore, a certain parameter and explanation of where it comes from, as well as an explanation of whether it evolves (does art evolve? etc.). This is the Pythagorean approach to the "spheres". Is there an absolute harmony or is harmony only subjective? I posit that harmony is a function of a coherence of wave shape with discordant waves being non-harmonious. There is then a continuum of harmoniousness with perfect coherence (wave matching) as perfect harmony. In that sense therefore, aesthetics can be objectively judged by coherence and has a range of coherences and variability.

In any case, it is interesting that, in my system, all these concepts which we normally consider as being from the phenomenal, subjective realm, are actually based in a very different realm, that of energy, and they are fully objective.

Reductionism and Zombies

Part two of his book concerns what he calls "The irreducibility of consciousness". He starts off with the concept that consciousness cannot be explained in physical terms; Almost everything in the world can be explained in physical terms; it is natural to hope that consciousness might be explained this way,

too. I will argue that consciousness escapes the net of reductive explanation. No explanation given wholly in physical terms can ever account for the emergence of conscious experience. This may seem to be a negative conclusion, but it leads to some strong positive consequences that I will bring out in later chapters.

I agree with this. This is because consciousness is a third dimension of energy (space-time, materiality, consciousness) and is thus not physically based. It is explained only in reliance to energy. In one sense though one might explain consciousness physically in the following way as stated earlier:

What is difficult to comprehend is that an inner quale doesn't necessarily have to be phenomenal in order to duplicate the externally caused quale – it just needs to duplicate all of the external quale's associated phenomenal characteristics. This can be done cognitively by exactly reproducing or re-documenting the original quale's characteristics.

Let's say, for instance, that an external green quale had a certain rod and cone aspect or effect in the experience it produced from the original green quale experience (that is; originally, for the first time it ever was come across, it had been experienced through a reaction of awe and reinforced each time thereafter). Let us also say that the external green quale produced a certain emotion – happiness for example (this is not a literal example). Then if the coding, into an inner quale, of the firing of the rod and cone neurons were related to those actually fired rods and cones, and the various physical characteristics of "happiness" were coded in neuronal pathways for those physical responses, into that inner quale also (faster heartbeat, flush of the skin, etc.). Then the calling up of this inner quale, with all its physically mirrored neuronal paths, when coming across an external quale, will produce a duplicate of the original phenomenal experience. The inner quale might not technically be phenomenal, since it was due to physical neurons firing, but since there is no difference between the two qualia, it solves the hard problem. A mirror's reflection is technically a physical thing, but compared to the original object, it is phenomenal in that it has been removed from the original physical object.

Nonetheless, can a zombie be conscious; or in other words; is there a function or "place" within our brain/mind that accounts for us being conscious? Where does green exist inside us and how do we recognize it (react to it)? I say that there is a coherence within us between "outside qualia" (universal consciousness's specific qualia) and my inner qualia match (through the process I have outlined previously) that results in a conscious recognition. But what is that match? Is it physical? Or is it phenomenal itself and a transformation from a complex compendium of functionality within my brain/neurons? Is it local to the area that is processing it (i.e.: color has qualia matching within the visual cortex, sound in the auditory, etc.)? Where is the "Bing" of Penrose? (Penrose defines consciousness, defines knowing, as "The Bing of Knowing").

Perhaps, however, it is the irreducible singularity of qualia in the <u>universal</u> that we experience. When that singularity is matched (coherent) then experience comes into our existence <u>from the outside</u> as real as a reflection of green off a surface enters into our cortex from the outside. So, an external

object results in an inner object that does not exist "inside" but rather (through transformation) our inside bridges to the outside universality.

In such a case as that; the "Bing" is the ringing of the universal bell (it's actually the attentive recognition). And just as a scene encompasses the entirety of our experience of that scene inwardly, so does a match with the universal qualia. Qualia does not "enter us", we "enter it"; and thus, consciousness is not an inner state but rather is the experiencing of universal consciousness – the universal state. This is the exact description of "the soul" (that of at-one-ness with the universal). Therefore – consciousness is of the soul; and the soul is not inner to us but is "external" to us – non destructible and forever.

An interesting exercise is to picture a being that has no sensory receiving apparatuses. Deaf, dumb, blind and also no feeling of touch, heat, cold, etc. Would that being be conscious? And what if that being suddenly could see and was exposed to the outer world – would consciousness suddenly manifest? If you tend to say yes then consciousness is really "outside of us" and not really necessarily our own, but rather is shared with any consciousness of the outer world.

Would a zombie then have a soul? The answer to this leads to some very interesting conclusions. The attention of the Will is partly an organic function, that is; the linking up to the external qualia must match coherently to that external qualia from the inner qualia – it must be made of the same "stuff" - must be begotten from energy. Silicon programming, as in the case of a zombie or a computer (Artificial Intelligence) is not comprised of energy's facets, its dimensions – it is more comprised of a program. That program, though on the border of phenomenological and functional, is nonetheless not comprised of energy's facets/dimensions. Because it is not, it cannot cohere with qualia and therefore cannot have a conscious experience (it doesn't have the "Bing" of recognition). It can only produce a mimicking of behavior or action. Thus, the nomenclature; "Artificial". Note that energy's facets are; Space-time, Materiality and Universal Consciousness. If the faculty that experiences is not begotten from this distribution of energy (as are organic objects), then no experience phenomenologically can occur (as is the case of a silicon robot).

I would posit nevertheless that as long as the zombie has the facility of bridging to the universal through some sort of organic functionality which could cohere to that of energy's qualia (an artificial Will) then qualia matching (inner and outer) would take place and a soul would exist. This then speaks of a "level" of functionality (a complexity and the component's make-up – from energy's facets) where consciousness (and soul) come into being. But here again – it's cart before the horse due to our vantage point. It's not that the consciousness comes into being, it is always there (universally) – it's that the facility for consciousness to manifest physically or psychologically deals with a specific configuration of mentality, but must also have the proper make-up of energy. Rocks don't have this facility, but mice do, etc.

What that facility is, again goes to the heart of the question of what consciousness is. I say that if the universe is indeed conscious – not brain-wise but in the sense that the totality of information or qualia (through the interrelatedness between space-time, materiality and consciousness, i.e.: energy) - then everything in the universe has potential consciousness in it to some degree (yes, rocks too). Only the simpler, non-organic objects do not have the ability to bridge or link (therefore this is not Panpsychism). So, it is this ability, borne of the Will (the bridge), through Recognition, that accounts for what we call self-consciousness. Here again a very detailed explanation of what Will is made up of

begets the final definition of what we call consciousness. By the way, the above concepts do not support Pan psychism precisely because we clearly state that consciousness does not occur in everything, just potentially.

Chalmers underscores the uniqueness of consciousness when he says that even if we knew every last detail about the physics of the universe—the configuration, causation, and evolution among all the fields and particles in the spatiotemporal manifold— that information would not lead us to postulate the existence of conscious experience. My experience of consciousness that forces the (hard) problem on me.

Here, the mistake he makes is considering a priori that it is <u>my experience</u> that causes the problem of understanding consciousness. If it isn't just <u>mine</u>, but it is universal, then there isn't a problem of the same nature. A good analogy is if a cell considers its identity as singular, it would not be able to conceive of why its functional objective is such and such (a particular functionality within the larger system). However, if the cell understands its identity as part of a larger whole, then its functionality would be comprehensible to itself. A cell does not have the facility to understand though – such facility being comprised of the ability to cohere with outer consciousness – qualia.

He believes that: Our knowledge that conscious experience exists derives primarily from our own case – but I believe that our knowledge that consciousness exists derives from the universal case. And this makes a huge difference in the nature of the discussion.

A very key point he makes is this: For consciousness to be entailed by a set of physical facts, one would need some kind of analysis of the notion of consciousness.

In other words, it is a circular problem – to know what it is, one must know what it is!! However, I would submit the following logical argument; It is unknowable by us because we only have accessibility to the dimensions of space-time and materiality, and since consciousness is of a third and completely different kind (as different as space-time is to materiality) then we cannot know it directly, it is outside of our ability to understand, recognize and define its nature.

However, if one can eliminate every possible conceivable explanation of something (as is the case with consciousness) then, yes, it is unknowable by us, <u>but</u> – it is knowable that it is unknowable, and that known fact (of the un-knowable-ness of the subject), tells us that the subject is of a kind that is not of our material notions (or space-time notions) and therefore must be non-material, and <u>something</u> other than material (or space-time) must exist, just not within our reach of knowability.

But if we "know" the unknowable does actually exist, then we can deduce that the "notion of consciousness" exists and thus, we could potentially analyze it in terms of what it entails in the negative sense and eventually come to a "notion" of what it is <u>like</u>. And by coming to a "likeness" notion we can then grasp other facets that it likely has, and so on. We can come to know things through analogy.

For example; if we only have knowledge of the numbers 1 to infinity and we want to have a notion of zero, by eliminating all the possibilities that it is any of the numbers between 1 and infinity, we would "discover" that it is not a number and that number-ness is not one of its qualities. We then could

ruminate on what qualities a non-number would have and eventually come upon the discovery that zero-like fits with this abstract concept (as did the Mayans).

So, to address Chalmers, in the final analysis, we could indeed come to the conclusion that consciousness can be entailed by a set of physical facts, or at least partially comprised of physical facts – the same way we can conclude that a part of consciousness has to do with the physical (material), which it does (through inter-dimension relatedness). Yes, we still do not know the inherent nature of consciousness, but we do know something about it; that it has a connection to the material and to space and time. If we further discover that space-time and materiality is derived from energy, we could rightly conclude (but never definitively know) that consciousness is also derived from energy, at least in part. That's probably as far as we could go since no experiment could dissect energy into those three components for us to view. But we will have discovered a key characteristic of consciousness which may very well lead us to a number of answers to our questions.

Chalmers then comes to a key quality of consciousness. He states; Although conscious states may play various causal roles, they are not defined by their causal roles. Rather, what makes them conscious is that they have a certain phenomenal feel, and this feel is not something that can be functionally defined away.

I agree, it cannot be defined in the positive sense (that is; functionally) but as I said above – it can be defined through its negative sense (what is it that is non-functional, what is non-functionality?) and that type of analysis would bring us closer to knowing what it is, or at least what it is like. Remember, we never interact with consciousness or qualia directly, but only secondarily through recognition – that is the "what it is like" aspect of it.

He goes on to state: It seems that the concept of consciousness is irreducible, being characterizable only in terms of concepts that themselves involve consciousness.

But here he gives little attention to the stressing of a key point – the point, as I brought out above – is that he has determined that consciousness is irreducible (through rejecting all other types of reductive explanations) and thus has discovered something about consciousness, has discovered an attribute. And by then looking into what other "things" are ultimately, completely irreducible, one may come to further conclusions and knowledge of what consciousness is like. A non-reducible thing is a fundamental thing (like forces, etc.) and thus consciousness is a fundamental of the phenomenal realm.

The hardest problem for a theory of consciousness, is that no physical theory will take us all the way to qualia: This suggests a need for an approach to the problem of qualia. As a basis for a theory of consciousness, it is sensible to assume that, just as in ourselves, qualia exist in other conscious human beings, whether they are considered as scientific observers or as subjects. . . We can then take human beings to be the best canonical referent for the study of consciousness. This is justified by the fact that human subjective reports (including those about qualia), actions, and brain structures and function can all be correlated. After building a theory based on the assumption that qualia exist in human beings, we can then look anew at some of the properties of qualia based on these correlations. It is our ability to report and correlate while individually experiencing qualia that opens up the possibility of a scientific investigation of consciousness. (Edelman 1992, p. 115) As before, because this theory is based on the assumption of correlation, it is clear that a reductive explanation of experience is not on

offer. Most of the time Edelman claims only to be explaining the processes that underlie conscious experience; he does not claim to be explaining experience itself.

Interesting approach by Edelman and one that we agree with. We cannot know qualia directly, only indirectly through the recognition process we outlined previously, such recognition as a secondary, non-direct relationship. And this passage also underlines what I said before; that through exploring analogous avenues (he calls these correlations) that are either not characteristic of consciousness, or are correlated in some way with it – we can discover much about the nature of consciousness. In the case he points to above; we can explore human reactions (both psychologically and functionally) to consciousness or qualia, and learn much about its nature and operative functionality.

Sometimes it is held that the key to the explanation of consciousness and fields in the spatiotemporal manifold, is in undergoing complex processes of causation and evolution. An opponent might agree that nothing in this sort of physics entails the existence of consciousness, but it can be argued that there might be a new kind of physical theory from which consciousness falls out as a consequence. This touches upon my approach to a theory; a new kind of physical theory – that of energy's distribution.

It is not easy to evaluate this claim in the absence of any detailed proposal. One would at least like to see an example of how such a new physics might possibly go. Such an example need not be plausible in the light of current theories, but there would have to be a sense in which it would recognizably be physics (which in my theory, the "physics" of energy certainly is). The crucial question is: How could a theory that is recognizably a physical theory entail the existence of consciousness? If such a theory consists in a description of the structure and dynamics of fields, waves, particles, and the like, then all the usual problems will apply. And it is unclear that any sort of physical theory could be different enough from this to avoid the problems.

Not if the physics is new and revolutionary. Nonetheless, it would not at that point be considered "physical" in the material sense. It would be however, comprehendible in a wider sense. Maybe called supra-physical or some other nomenclature that captures the "physics" of energy.

The three-dimensional theory I have proposed on energy being the progeniture of everything, leaves us seeing this as a "physical" theory simply because one of the essential aspects of the fundamental building block of consciousness (energy) has as its constitution the phenomenological and physical aspect of universal consciousness or of qualia, which partakes of both. Being that 2/3rds of this building block is physical (space-time and materiality) it would be inevitable that we, who are physically based, would ascribe physicality to that theory, when in fact it is a physio-phenomenal based theory.

Remember, the root of universal consciousness is information. Information concerning the differences between different material conglomerations and spacetime aspects of those. It is undeniable that these differences exist and that they have identification as the root aspect of them. This "root aspect" is precisely universal consciousness, is precisely qualia, and is precisely phenomenological.

The trouble is that the basic elements of physical theories seem always to come down to two things: the structure and dynamics of physical processes. Different theories invoke different sorts of structure. Newtonian physics invokes a Euclidean space-time; relativity theory invokes a non-Euclidean

differential manifold; quantum theory invokes a Hilbert space for wave functions, and different theories invoke different kinds of dynamics within those structures: Newton's laws, the principles of relativity, the wave equations of quantum mechanics. But from structure and dynamics, we can only get more structure and dynamics. This allows the possibility of satisfying explanations of all sorts of high-level structural and functional properties, but conscious experience will remain untouched. No set of facts about physical structure and dynamics can add up to a fact about phenomenology. This seems to be a priori true and the nature of the term phenomenological.

I submit that this is not entirely true. If physicalness is begotten from a different reality (energy's character), and if phenomenology is also made from that same character of energy – then through commonality, a theory can arise that is subsumed by that of energy. If C contains A, and C contains B, then C is the common set and a more precise and holistic description of A & B (it's a basic Venn diagram). So, even though it seems that by using physical definitions to a phenomenological reality seems to preclude a physical solution – it does not preclude a different type of solution which the physical would correlate and adhere to, a solution that subsumes the physical and the phenomenological.

For example, no matter which theory you look at, whether that be Newtonian space, Hilbert Space or fields, the fact that they all have differences will remain. Therefore, difference is the middle part of the Venn diagram, and no matter how you investigate and reduce investigation of the nature of these various aspects of physical reality, you never will see any effect upon the differences, those are irreducible and phenomenal. The solution to the physical aspect does not change the differential aspect and, by reductionism, owes its make-up to it.

Of course, there is a sense in which the physics of the universe must entail the existence of consciousness, if one defines physics as the fundamental science from whose facts and laws everything else follows. This construal of physics, however, trivializes the question involved. If one allows physics to include theories developed specifically to deal with the phenomenon of consciousness, unmotivated by more basic considerations, then we may get an "explanation" of consciousness, but it will certainly not be a reductive one.

However, a theory that subsumes physics as we know it can, and does, have an irreducibility to it. In fact, the theory of energy is one that is purely monadic and irreducible. Being that energy consists of the physical and the phenomenal – they too inherit irreducibility as their main component.

He mistakenly uses the following as an example of utilizing the physical to explain the phenomenal; For example, Penrose (1994) suggests that the key to understanding wave function, leading to a nonalgorithmic element in the laws of nature. Drawing on the ideas of Hameroff (1994), he suggests that human cognition may depend on quantum collapses in microtubules, which are protein structures found in the skeleton of a neuron. Indeed, Penrose and Hameroff suggest that quantum collapse in microtubules may be the physical basis of conscious experience.

What is really happening here though is that Penrose and Hameroff are attempting to subsume the phenomenal with the physical. However, one does not subsume the other, they are both subsumed by a third, non-physical and non-phenomenal entity (energy) that better defines them. So, Penrose's explanation of the linkage between consciousness and physical functionality leaves out the common nature of the two. He explains how consciousness could appear in us physically, but misses defining

what consciousness actually <u>is</u>. His physical description is thus only reserved for a physical explanation of that side of a combined process (as Chalmers contends), he says nothing about the other side of the combined process, that of the phenomenal aspect of consciousness. It is thus a bad example of a complete theory, yet a good example of Chalmers' point that physical solutions do not transcend physicalness.

As a side note that addresses Penrose's theory, it is the problem of <u>location</u> that I believe invalidates his theory. The location of qualia must be everywhere in order to always be accessible, and with Hameroff it has only a singular, specific location. In my theory, the location is everywhere, and the time is everywhen. This is a result of its derivation from space-time as one of its facets. Space-time begets and encompasses all of space and all of time at once (this doesn't mean time in the past and the future, but rather time being ubiquitous everywhere). With Hammeroff's theory, in order to realize greenness, one would have to be within that quale's location, and unless the greenness quale is located everywhere and always, one could not access it if one were in another place at another time. In addition, one could not "call up" the color green at will, which we can do, simply because we would not be in the location of a green quale always.

Chalmers notes: Why should quantum processes in microtubules give rise to consciousness? The question here is just as hard as the corresponding question about classical processes in a classical brain. This underlines the fact that Penrose has not explained consciousness – just the link.

Penrose's answer to that criticism is that it is "The Bing" (i.e.: a certain feeling) that gives rise to consciousness, to self-knowing. However, he does not explain how psychologically and cognitively, the transformation from qualia to mental takes place. He only defines where physically it happens but not where psychologically it happens (as our recognition concept does). We contend that "The Bing" is actually a recognized <u>feeling</u>, cognitively processed, which is itself begotten from a quale of "Bingness" – an inner quale of that kind of feeling.

"Feel" is one of the keys to conscious experience inwardly – to expound on this; Green has a subtle feel to it upon recognition, an experience that is not of the visual cortex, is not a sight, red a different feel, etc. They are a "feel" that is below the level of cognitive recognition, but there just the same. Thus, a better rendition of what we "see" is a "feel" of that color, we feel qualia in our brain/nervous system. The Bing itself is also a feeling – that feeling is a quale of the feeling itself. One can rightly proclaim that everything is qualia!

He concludes: Any account given in purely physical terms will suffer from the same problem. It will ultimately be given in terms of the structural and dynamical properties of physical processes, and no matter how sophisticated such an account is, it will yield only more structure and dynamics. While this is enough to handle most natural phenomena, the problem of consciousness goes beyond any problem about the explanation of structure and function, so a new sort of explanation is needed.

Therefore, something not of a physical explanation must come about. That is what I have proposed, something that is outside of the material or space-time dimensions. That something is the original, first time experience of Awe that accounts for the physical coding of a phenomenal occurrence.

Because Awe directly results in experience that is unmediated, it is therefore not a physical description or accounting.

In a sense, Awe "jumps over" all the normal physical transformations of the physical to the phenomenal – it is instead directly phenomenal. This occurs because, when in the state of awe, all diversionary physical processes and occurrences are held in abeyance. Without those <u>limiting</u> physical aspects – the phenomenal manifests directly as phenomenal experience. It really comes down to the following tautology: Since we experience things phenomenally, there must be a phenomenal capability to do so (ipso facto).

Therefore, phenomenal objects have the ability to directly cause phenomenal effects by the fact that we can process phenomenologically. As long as physical processes do not mediate or get in the way, we will process phenomenologically. The state of awe is such a situation. From that initial phenomenal experience, because we can at the same time separately code it physically – all subsequent occurrences with that same phenomenal object will process "as if it were purely phenomenological".

For an explanation of consciousness, then, we must look elsewhere. We certainly need not give up on explanation; we need only give up on reductive explanation. The possibility of explaining consciousness non-reductively remains open. This would be a very different sort of explanation, requiring some radical changes in the way we think about the structure of the world. But if we make these changes, the beginnings of a theory of consciousness may become visible in the distance. And this is precisely what I have proposed and defined.

At this point in my narration, it is a good time to step back, renew and remind ourselves of how very amazing this all is. We do not want to reach a situation where, because consciousness gets somewhat explained, it loses its aspect of amazement. That can always be a concern. Evidence atomic theory. Although when we reflect upon what it is, we are still amazed and in awe, in general we just take it for granted. This is the risk of discovery – that which gets discovered loses the awe of its mystery.

In the case of consciousness, it's easy to overlook the amazingness of it all. What must be kept in perspective is that given the explanation that everything is qualia, and qualia is universal and external to us — then all that we fundamentally are is universal, outside us and shared in common with us all. It is the amazement of the concept of the soul, and it quite possibly realizes the most precious desire of all living things — that of continuation after death. Maybe it still is not the individual continuation, but if indeed everything is of the universal, if no consciousness is individual to us in the sense of basic experience of qualia and consciousness — then the "I continue after death" simply, but passionately becomes, "We continue after death". It might not be fully what we wanted (the individual-ness continuation) but it's a damn good consolation prize!

So – be amazed! When you go about your day, your life, your existence – you are in reality, underneath it all; partaking of the universal – you are not alone!!

Natural Dualism

In his next chapter he presents his theory of Natural Dualism; An argument against materialism was made in the last chapter, I was concerned with the explanatory question, "Can consciousness be explained by physical theories?" rather than the ontological question, "Is consciousness itself physical?" But the two questions are closely related, and in this chapter, I will draw out the ontological consequences of the arguments in the last chapter. In particular, the failure of logical supervenience

directly implies that materialism is false: there are features of the world over and above the physical features. This is what I claimed; that energy subsumes the physical (and the phenomenal).

We can use Kripke's image here. When God created the world, after ensuring that the physical facts held, he had more work to do. He had to ensure that the facts about consciousness held.

This failure of materialism leads to a kind of dualism: there are both physical and nonphysical features of the world. The falsity of logical supervenience implies that experience is fundamentally different in kind from any physical feature. But there are many varieties of dualism, and it is important to see just where the argument leads us.

The dualism implied here is instead a kind of property dualism: conscious experience involves properties of an individual that are not entailed by the physical properties of that individual, although they may depend lawfully on those properties. Consciousness is a feature of the world over and above the physical features of the world. This is not to say it is a separate "substance"; the issue of what it would take to constitute a dualism of substances seems quite unclear to me. All we know is that there are properties of individuals in this world—the phenomenal properties—that are ontologically independent of physical properties.

This points to the question of whether energy transforms into three separate entities with their own completely separate identity, or do the three entities just have different facets of one, monadic entity? I maintain that energy has been transformed into separate entities, but that those separate entities remain connected to one another and cannot exist without one another, and ultimately, after many eons, re-form into the monadic entity of energy (ultimately into potential energy). This is important that they are separate yet connected because it accounts for why we feel separate from everything (and alone). This is because our conscious experience is only connected, through our bridge of Will, to the conscious portion of energy and not to the other two facets (space-time and materiality). This separateness connection results in a separateness of experience also — it reflects it.

So, the property dualism is a function of having physical properties (materiality and space-time) that are dependent upon phenomenological properties (Universal Consciousness or Qualia).

Because these properties are not even logically supervenient on microphysical properties, they are nonphysical in a much stronger sense. When I speak of <u>property dualism</u> and nonphysical properties, it is this stronger view and the stronger sense of non-physicality that I have in mind.

This remains plausible, however, that consciousness arises from a physical basis, even though it is not entailed by that basis That is only partially true – the physical basis is its functional process that must be present, however, that may be considered the least part of what constitutes conscious experience, qualia being the dominant reason. But just the same, an inner quale may be physical due to its coding yet deliver phenomenal experience by being a duplicate of the original phenomenal experience. It is physio-phenomenal just as external qualia is physio-phenomenal. This points to the probability that consciousness is not purely phenomenal but rather is physio-phenomenal. That would answer many of the hard problem questions because it links up the phenomenal side of consciousness with the physical side of functionality. The position we are left with is that consciousness arises from a physical substrate in virtue of certain contingent laws of nature, which are not themselves implied by physical laws. I agree with this concept.

Although it is a variety of dualism, there is nothing antiscientific or supernatural about this view. The best way to think about it is as follows. Physics postulates a number of fundamental features of the world: space-time, mass-energy, charge, spin, and so on. It also posits a number of fundamental laws in virtue of which these fundamental features are related. Fundamental features cannot be explained in terms of more basic features, and fundamental laws cannot be explained in terms of more basic laws; they must simply be taken as primitive. Once the fundamental laws and the distribution of the fundamental features are set in place, however, almost everything about the world follows. That is why a fundamental theory in physics is sometimes known as a "theory of everything." But the fact that consciousness does not supervene on the physical features shows us that this physical theory is not quite a theory of everything. To bring consciousness within the scope of a fundamental theory, we need to introduce new fundamental properties and laws.

And this is what I have done in my theory — introduced a new fundamental property. He could have also because it is my contention that the fundamental feature of consciousness is qualia. The concept of qualia was there for him to utilize as a fundamental feature, he just didn't do that, leaving a void for this. As far as fundamental laws go, this we do not presently know (except possibly the law of cause and effect). I suspect that they are subsumed by the fundamental laws of energy. In my theory those laws are born of geometry. The other dimensions (space-time and materiality) correlate their laws to that of energy also. Space-time with geometry and materiality with fields. I suspect that consciousness too will reflect their similarity to energy's basic laws and fundamentals. If I had to make a guess as to what they would constitute, I would guess quantum-ness.

There are two ways this might go (according to Chalmers). Perhaps we might take experience itself as a fundamental feature of the world, alongside space-time, spin, charge, and the like. That is, certain phenomenal properties will have to be taken as basic properties. Alternatively, perhaps there is some other class of novel fundamental properties from which phenomenal properties are derived. Previous arguments have shown that these cannot be physical properties, but perhaps they are nonphysical properties of a new variety, on which phenomenal properties are logically supervenient. Such properties would be related to experience in the same way that basic physical properties are related to non-basic properties such as temperature. We could call these properties proto-phenomenal properties, as they are not themselves phenomenal but together, they can yield the phenomenal. Of course, it is very hard to imagine what a proto-phenomenal property could be like, but we cannot rule out the possibility that they exist. They are qualia which is supervened by Energy.

In the above he sums up the crux of my beliefs about phenomenal properties and fundamental laws as I expounded above. I don't think though that they would be one to one related to experience. I think that experience would be a secondary characteristic of phenomenal fundamentals. Instead, it would be qualia that was directly caused by those fundamentals.

The Fundamental Laws

The "laws" of qualia is something that would need further investigation. Laws, in general, specify how a fundamental object or property acts in relation to other objects or properties – whether those be phenomenological or physical. They are relational laws and have an intimate, perhaps one to one, connection with cause and effect (the fundamental aspect being cause). Therefore, the study of what effects occur due to an interaction with qualia, will likely beget what laws are responsible for causing 73

qualia to exist in connection with qualia (or energy in general). I believe that the law that exists in conjunction with the onset of qualia is that of the conservation of energy. When energy is distributed (to space-time and materiality), in order to be conserved, there is a "remainder" that is qualia which accounts for and completes that conservation. Thus, conservation is a descriptive nomenclature for the distribution of energy into its component parts. There can be no further breakdown of those parts as they are fundamental – they are the indivisible components of energy. Look at it this way; if experience exists, which we know it does, and if you agree with my contention that energy is the subservient progenitor of everything, then consciousness and experience is the third distribution of energy by default that it exists. I experience; therefore, it is from a fundamental property.

Two primary observations occur here; 1) There seems to be a "logical" ordering of qualia with each other. The appearance or occurrence of qualia happens in conjunction with other qualia that has, in psychological retrospect, a certain cognitive logic to them, and 2) Qualia causes experience within a psychological, functional cognitive structure.

As regards the first issue; referral to the section in my book "Mirrors" concerning how cause and effect interrelates with the logical ordering of qualia within universal consciousness, is an exact rendition of this first law.¹⁶ Here is an excerpt from there:

Cause and effect are thus the result of energy transforming from one dimension into another; or better put - reflecting itself in each dimension. Any interaction between dimensions results in an effect. Neither supersedes the other — when motion interacts with time a transformation occurs as an effect, motion being the causative aspect — and when time interacts with motion a transformation occurs as an effect, time being the causative aspect. This is the precise definition of cause and effect.

Essentially cause and effect are opposite sides of the same coin and the ordering of cause and effect is a function of which dimension the event is being considered from. When the dimension being considered is in the material realm (as all of our experience reflects) then the cause is motion and the effect is a reordering of the amounts of time and motion in that which it interacted with. When the dimension being considered is in the ethereal realm of time then time is the cause and the effect is motion. This is why motion proceeds forward and why time proceeds forward. The arrow is set off by the nature of energy in its different states or dimensions. So, when motion is occurring, time is proceeding as duration. And when time is proceeding as duration, motion is occurring. Motion, time and duration are different words for the same thing. Motion is duration because it is a physical object existing repeatedly. That is the definition of duration. They are each positive, or forward.

The nature, the essential aspect, of duration is from before to after, from the past to the now – by definition. It thus sets the arrow pointing forward. Therefore, since both time and motion are defined by duration – time only moves forward from the past and motion only moves forward from the previous. That is the arrow of time pointing forward.

Defining this further, one can say that <u>the essence of energy is duration</u> and that energy itself only proceeds forward from the past or the previous state.

That is the nature of cause and effect. It is the nature of time and motion – you can call it either one depending upon which vantage point you are viewing it from. The "program" that accounts for the order of things (and thus the logic of reality that we experience) is therefore the interaction of time with the energy field's attributes.

Remember, we have repeatedly insisted that each dimension interacts with each other – here is a perfect example of this. Once "order" is established, then the order of our perceptions will take a certain form that we define as logical and consistent - coherent. It will then order the qualities it accesses from universal consciousness. We are, in effect, the agency that is responsible (or indicative) of the interaction of the dimension of universal consciousness and time.

As regards the second observation; that qualia results in experience, a referral to the dynamics of how qualia interacts with the physical cognitive process, points to how the law manifests as qualia interacts with materiality. This requires delving into the nature of the how and why of energy's three-dimension manifestation, transformation and interaction. These aspects of energy's "distribution" have been touched upon in "Mirrors" and basically demonstrates how geometric spatial differentiation causes energy's relationship with space and its forming of space, it demonstrates how the function of "persistence" causes time and how the effect of motion (creating mass) results in materiality.

So, in these senses, the laws of qualia are effects begotten from the advent, the onset, of kinetic energy. The remaining laws deal with how these three facets interact with one another (again, a cause-and-effect study and relationship). In general, interactions are of the nature of both transformation (depending upon what vantage point it is viewed from, that is; from which dimension) and reflection (how they co-exist with one another). For example; time co-exists with materiality (and with consciousness) in that it endows these two related facets with persistence. Space endows them with location. Materiality endows them with the ability to effect things and Consciousness endows those two with identity, definition and existence itself.

How is it then that energy can tri-furcate into the three realms of space-time, materiality and, above all – consciousness? When energy manifests into the universe, through the fluctuation of potential energy into kinetic energy, three things happen; 1) A location manifests where a specific quantum of energy resides - a co-ordinate, otherwise known as space. Along with that co-ordinate, a specific moment manifests. This moment persists going forward so that an object (quanta) at such and such specific location exists at such and such moment, and next at a new moment at that same place. This we call time. The combination of the two (space and time) is what is known as Spacetime and has a certain set of time and place co-ordinates. 2) Through the manifestation of mass or motion, materiality comes into existence. We now have a location, a time and an object. 3) Each and every object, down to the smallest micro-sized object (a Planck unit) and up to any one of many compendiums of combinations which result in new transitional objects (like water changing into ice) – each one of them Exists. That seems self-evident, but look closely at this. The individuality of every object, every atom, quark, quanta of energy or even a rock, has its own identity, its own separate existence. So, the third manifestation of energy is existence or identity. But these identities

are not stagnant, they are dynamic – they exert their reality onto the background of spacetime. Without this unique identity, material objects could have nothing more than an empty, undifferentiated set of time and location co-ordinates. By emanating their unique characteristics, they give an aspect to those space-time-material co-ordinates – they bestow existence and identity to otherwise empty containers. This character-based existence is called qualia and as we have described previously; the compendium of all qualia is what we call universal consciousness, which is the third emanation of the distribution of energy.

These are the primary laws of energy and its three dimensions. Within those three dimensions are secondary laws that will determine how these facets operate in the universe, both physically (materially) and phenomenally.

So, a clue to the why qualia interacts with materiality and causes experience, according to its endowing characteristics (identity, definition and existence) lies within the cause-and-effect nature of qualia. Cause and effect always portray and depict the secondary properties resulting from fundamental entities. Identity, definition and existence are the effects, phenomenally, of energy manifesting, energy's causation property.

Those secondary properties consequently cause qualia (which causes experience). So, qualia, stemming directly from energy, are the fundamentals of the phenomenal realm. They cause attributes (or qualities) as an effect which goes on to cause experience, then recognition, then cognitive definition.

It is interesting to note that the material (cognitive) result of the chain of causation set off by qualia, which has as its properties <u>definition</u>, <u>identity</u> and <u>existence</u>, are exactly those characteristics that the material and cognitive final effect results in. This dramatically supports my concept that each of the dimensions have each other as a part of them in some form upon interacting with one another. In this case; the phenomenal attributes of definition, identity and existence is reflected in the effect, of experience, recognition, and cognitive definition, from the physical interacting with the phenomenal. I think this quite distinctively goes to the heart of explaining the "hard problem".

Chalmers continues in this vein extensively; Where we have new fundamental properties, we also have new fundamental laws. Here the fundamental laws will be psychophysical laws, specifying how phenomenal (or proto-phenomenal) properties depend on physical properties. These laws will not interfere with physical laws; physical laws already form a closed system. Instead, they will be supervenience laws, telling us how experience arises from physical processes.

Actually, experience arises from phenomenal processes, from their causation and effect. We have seen that the dependence of experience on the physical cannot be derived from physical laws, so any final theory must include laws of this variety. In that last sentence it is apparent that he sees experience being dependent on phenomenal laws as I have contended.

Of course, at this stage we have very little idea what the relevant fundamental theory will look like, or what the fundamental psychophysical laws will be. But we have reason to believe that such a theory exists. There is good reason to believe that there is a lawful relationship between physical processes and conscious experience, and any lawful relationship must be supported by fundamental laws. The

case of physics tells us that fundamental laws are typically simple and elegant; we should expect the same of the fundamental laws in a theory of consciousness (which they do). Once we have a fundamental theory of consciousness to accompany a fundamental theory in physics, we may truly have a theory of everything (as long as we here include the laws of spacetime which we have been partially given by Einstein, but not fully). Given the basic physical and psychophysical laws, and given the distribution of the fundamental properties, we can expect that all the facts about the world will follow. Developing such a theory will not be straightforward, but it ought to be possible in principle. This indicates that the full and final investigation and discovery of the nature of energy would then result in a Grand Unified Theory (GUT).

This view is entirely compatible with a contemporary scientific worldview and is entirely naturalistic. On this view, the world still consists in a network of fundamental properties related by basic laws, and everything is to be ultimately explained in these terms (and in fact they do and they reveal symmetry and elegance, stemming from one monadic entity – that of energy). All that has happened is that the inventory of properties and laws has been expanded, as happened with Maxwell. Further, nothing about this view contradicts anything in physical theory; rather, it supplements that theory. A physical theory gives a theory of physical processes, and a psychophysical theory tells us how those processes give rise to experience.

Actually, it is also vice versa, phenomenal theory tells us how processes give rise to experience. It is this "vice versa" aspect that gives my theory its elegance and simplicity as well as symmetry – because physicality begets experience and likewise, experience begets physicality (plus the additional interaction of space and time), this theory exhibits elegance and demonstrates the possibility that it describes reality.

To capture the spirit of the view he advocates, Chalmers calls it naturalistic dualism. It is naturalistic because it posits that everything is a consequence of a network of basic properties and laws, and because it is compatible with all the results of contemporary science. And as with naturalistic theories in other domains, this view allows that we can explain consciousness in terms of basic natural laws. There need be nothing especially transcendental about consciousness; it is just another natural phenomenon. All that has happened is that our picture of nature has expanded.

I should also note that although I call the view a variety of dualism, it is possible that it could turn out to be a kind of monism (I absolutely label it monadic, energy being the monad). Perhaps the physical and the phenomenal will turn out to be two different aspects of a single encompassing kind, in something like the way that matter and energy turn out to be two aspects of a single kind. (Emphasis added – this is what energy is, two aspects of a single kind!). Nothing that I have said rules this out, and in fact I have some sympathy with the idea. But it remains the case that if a variety of monism is true, it cannot be a materialist monism. It must be something broader (which I have said that it is).

Perhaps it may turn out that the duality of the physical and the phenomenal can be subsumed under a grander monism (which I contend is energy), but this will not be a monism of the physical alone.

Energy is not purely physical, nor is it purely phenomenal.

Though it could be looked upon as constituting both of these, a more correct definition is that it is in some other realm which encompasses and subsumes the physical and phenomenal realm. It would be all but impossible for us to really ever know what that realm is since we are "sentenced" to viewing

everything from the physical and phenomenal realms only. We can however determine its properties and further, its dimensions.

Causation

Nevertheless, the very nature of causation itself is quite mysterious, and it is possible that when causation is better understood we will be in a position to understand a subtle way in which conscious experience may be causally relevant.

As I have spoken about previously on page 72 (and in "Mirrors"), it is cause and effect that bestows the universal consciousness with an operational framework which our functional framework can operate with logically, and ultimately can experience conscious experience – a grand, closed and elegant loop.

A third strategy rests with the very nature of causation itself. We saw in Chapter 2 that there are two classes of facts that do not supervene logically on particular physical facts: facts about consciousness and facts about causation. It is natural to speculate that these two failures might be intimately related, and that consciousness and causation have some deep metaphysical tie (as I have demonstrated). Both are quite mysterious, after all, and two mysteries might be more neatly wrapped into one. In my theory, consciousness that aligns itself <u>logically</u> within our cognitive apparatus is due to causation, akin to what he is stating above. Without causation, without cause and effect, consciousness, on a universal and therefore on an individual basis, would be random and make no logical sense to us. It is cause and effect that provides that logical, well-ordered necessity.

A proposal like this has been developed by Rosenberg (1996), who argues that many of the problems of consciousness are precisely paralleled by problems about causation. He argues that because of these parallels, it may be that experience realizes causation or some aspects of causation, in the actual world. On this view, causation needs to be realized by something in order to support its many properties, and experience is a natural candidate. If this is so, it may be that it is the very existence of experience that allows for causal relations too. So that there is a subtle sort of relevance for experience in causation. It is not exactly pure experience but rather ordered experience that is the support and thus the effect of causation. However, it is not the source as he contends above – the source is universal qualia.

The intrinsic nature of the physical. The strategy to which I am most drawn stems from the observation that physical theory only characterizes its basic entities relationally, in terms of their causal and other relations to other entities. Basic particles, for instance, are largely characterized in terms of their propensity to interact with other particles. Their mass and charge are specified, to be sure, but all that a specification of mass ultimately comes to is a propensity to be accelerated in certain ways by forces, and so on.

Each entity is characterized by its relation to other entities, and these entities are characterized by their relations to other entities, and so on forever (except, perhaps, for some entities that are characterized by their relation to an observer). The picture of the physical world that this yields is that of a giant causal flux, (I would phrase it as a "flux of effects"). But the picture tells us nothing about what all this causation relates. Reference to the proton is fixed as the thing that causes interactions of a certain kind, that combines in certain Russell (1927) notes, this is a matter about which physical theory is silent. But add qualia to that proton and you have a full theory, a physio-phenomenal theory.

One might be attracted to the view of the world as pure causal flux, with no further properties for the causation to relate, but this would lead to a strangely insubstantial view of the physical world. It would contain only causal and nomic relations between empty placeholders with no properties of their own. (I agree wholeheartedly - no qualia) Intuitively, it is more reasonable to suppose that the basic entities that all this causation relates have some internal nature of their own, some intrinsic properties (again qualia and the effect of ordering by causation), so that the world has some substance to it (or identity to it). But physics can at best fix reference to those properties by virtue of their extrinsic relations; it tells us nothing directly about what those properties might be. But I contend that it can and that it does, we just need to follow the trail of causation beginning with the monad of energy.

There is only one class of intrinsic, nonrelational property with which we have any direct familiarity, and that is the class of phenomenal properties. It is natural to speculate that there may be some relation or even overlap between the uncharacterized intrinsic properties of physical entities, and the familiar intrinsic properties of experience. Perhaps, as Russell suggested, at least some of the intrinsic properties of the physical are themselves a variety of phenomenal property? (I have shown that they are and that they stem from the interaction of the physical with the phenomenal – they are certainly relational at base, and once again; what they are is qualia) The idea sounds wild at first, but on reflection it becomes less so. After all, we really have no idea about the intrinsic properties of the physical. (remember, in my theory, qualia have both phenomenal and physical characteristics).

Either way, this sort of intimate link suggests a kind of causal role for the phenomenal. If there are intrinsic properties of the physical, it is instantiations of these properties that physical causation ultimately relates. If these are phenomenal properties, then there is phenomenal causation; and if these are proto-phenomenal properties, then phenomenal properties inherit causal relevance by their supervenient status, just as billiard balls inherit causal relevance from molecules. In either case, the phenomenology of experience in human agents may inherit causal relevance from the causal role of the intrinsic properties of the physical (and the phenomenal).

Almost all of what Chalmers has brought out in this section agrees fully with my theory and supports much of what I have presented herein. I feel that this ratifies my theories and further solidifies those theories and renders them more likely and believable.

He goes on to further support my theories; There is a sense in which this view can be seen as a monism rather than a dualism, but it is not a materialist monism. Unlike physicalism, this view takes certain phenomenal or proto-phenomenal properties as fundamental. What it finally delivers is a network of intrinsic properties, at least some of which are phenomenal or proto-phenomenal, and which are related according to certain causal/dynamic laws. (these are exactly the characteristics that underlie my theory of qualia being both physical and phenomenal, which he calls proto-phenomenal – as does energy itself) These properties "realize" the extrinsic physical properties and the laws connecting them

(the distributive law of the conservation of energy as discussed previously) realize the physical laws. In the extreme case in which all the intrinsic properties are phenomenal, the view might be best seen as a version of idealism. It is an idealism very unlike Berkeley's, however. The world is not supervenient on the mind of an observer, but rather consists in a vast causal network of phenomenal properties underlying the physical laws that science postulates (that is; Universal Consciousness, which is formed by the totality of qualia and has been supervened by the monad energy). A less extreme case in which intrinsic properties are proto-phenomenal, or in which some are neither phenomenal nor protophenomenal, is perhaps best regarded as a version of Russell's neutral monism. The basic properties of the world are neither physical nor phenomenal, but the physical and the phenomenal are constructed out of them (this is exactly what I proposed above – that there is some other kind of realm that these realms are caused by – the realm of energy, which here would be considered the "neutral monism" he talks of). From their intrinsic natures in combination, the phenomenal is constructed; and from their extrinsic relations, the physical is constructed.

To underline this once again, that is what we contend; that physical (material) and phenomenal (consciousness) are constructed out of a more basic fundamental – energy, which quite possibly may be considered as having been formed from potential energy and geometrics (see "Mirrors" for a complete exposition of how geometry contributes fundamentally to the creation of kinetic energy from potential energy). Therefore, geometrics have inherent within them the causation, along with "the fluctuation" of the three derivatives of energy. Being derivatives, it also allows for causation between those entities (as well as effects between those distributed entities).

On this view, the most basic laws will be those that connect the basic intrinsic properties (as I brought out previously, that is: interaction and causation that connects those intrinsic properties). The familiar physical laws capture the relational shape of these laws, while abstracting away from the intrinsic properties. Psychophysical laws can be reinterpreted as laws that connect intrinsic properties to their relational profiles. This, in my theory, would not be true of materiality or mass, which are connected to their properties by only physical laws.

Thus, these laws do not "dangle" ontologically from physical laws. Rather, both are consequences of the truly basic laws (the laws of energy are the "truly basic laws" as demonstrated previously as are the interactive laws of causation). But the epistemological order differs from the ontological order: we are led first to the relational structure of the causal network, and only slowly to the underlying intrinsic properties (actually, we cannot "know" directly the underlying intrinsic, fundamental properties, but we can experience them and know secondarily, once removed from them). For everyday explanatory purposes, it is therefore most useful to continue to think of this view in terms of a network of physical laws, with further principles connecting the physical to the phenomenal. I disagree, I think that the more we attempt to explain from a phenomenological point of view then the more we will learn about it – practice makes perfect.

Option (iv) requires that the shape of physics will be transformed so radically that it could entail facts about conscious experience; but nobody has an idea of how any physics could do this. Indeed, given that physics ultimately deals in structural and dynamical properties, it seems that all physics will ever entail is more structure and dynamics, which (unless one of the other reductive options is embraced) will never entail the existence of experience.

That is ascribing a primacy of physicality to physics. In spite of the name physics, at this point in the deep and extensive amount of information we have accumulated in our studies of physics, I think the subject could at this point accommodate novel concepts outside the boundaries of just the physical. We should expand the study, not differentiate and thus isolate it. Once upon a time, philosophy was considered a part of the study of physics – it's time to resurrect that and concede that we were too quick to do away with their complimentary natures.

I agree, just because physics deals with structural and dynamical properties does not preclude the ability for a structural or dynamical type that is hereto undiscovered to account for phenomenalism or ultimately consciousness. In fact, if energy is the progeniture of it, everything (phenomenal and material), then being structural and dynamic, it will fit this definition.

One occasionally hears a fifth objection to dualism, which is that it cannot explain how the physical and the nonphysical interact. But the answer to this is simple on the natural supervenience framework: they interact by virtue of psychophysical laws. There is a system of laws that ensures that a given physical configuration will be accompanied by a given experience, just as there are laws that dictate that a given physical object will gravitationally affect others in a certain way. It might be objected that this does not tell us what the connection is, or how a physical configuration gives rise to experience. But the search for such a connection is misguided. Even with fundamental physical laws, we cannot find a "connection" that does the work (we can though with qualia and causation). Things simply happen in accordance with the law; beyond a certain point, there is no asking "how." As Hume showed, the quest for such ultimate connections is fruitless. If there are indeed such connections, they are entirely mysterious in both the physical and psychophysical cases, so the latter poses no special problem here.

Throughout the history of scientific discovery, that which was unknown was always considered mysterious and unknowable. That is until someone came along and upset the apple cart. Hume is wrong to once again submit to such a defeatist stance, and Chalmers should obviously know better given how much he has understood about the nature of the hard problem and the nature of the phenomenal.

It may be that in the early stages of the universe there was nothing that satisfied the physical antecedents of the laws, and so no consciousness, although this depends on the nature of the laws. In any case, as the universe developed, it came about that certain physical systems evolved that satisfied the relevant conditions. When these systems came into existence, conscious experience automatically accompanied them by virtue of the laws in question (Not so, universal consciousness always existed as did space-time – it just went cognitively <u>un</u>recognized). Given that psychophysical laws exist and are timeless, as naturalistic dualism holds, the evolution of consciousness poses no special problem.

Consciousness and Cognition

At this point in his book, Chalmers comes to explore the subject of the relationship between consciousness and cognition. As far as I am concerned, this is where the rubber meets the road. This is where the hard problem exists and where an explanation that we can grasp comes into existence.

A thorough investigation of the links between consciousness and cognition can provide the purchase we need to constrain a theory of consciousness in a significant way, perhaps ultimately leading to an account of consciousness that neither mystifies nor trivializes the phenomenon (so much for Hume!).

The mind-body problem is not that of explaining our judgments about consciousness. If it were, it would be a relatively trivial problem. Rather, the mind-body problem is that of explaining consciousness itself. If the judgments can be explained without explaining consciousness, then that is interesting and perhaps surprising, but it does not remove the mind-body problem. In other words, reporting the "what" of it is inferior to knowing the "how" of it.

There is a certain intellectual appeal to the position that <u>explaining</u> phenomenal judgments is enough. It has the feel of a bold stroke that cleanly dissolves all the problems, leaving our confusion lying on the ground in front of us exposed for all to see. Yet it is the kind of "solution" that is satisfying only for about half a minute. When we stop to reflect, we realize that all we have done is to explain certain aspects of "do I experience it like this?" And we realize that this explanation has nothing to say about the matter.

But this does not explain the <u>contents</u> of introspection; it explains only the processes involved. Extrospection is not introspection, although it is easy to see how a philosopher inclined to speculate on his own internal mechanisms could take one for the other. Conscious experience remains untouched by this explanatory method. In other words; introspection is just a different form of cognitive functionality and does not touch upon the phenomenal aspect of experience. It is part of the closed loop of physical functionality.

The basic problem with the accounts above is that they make our access to consciousness mediated, in the way that our access to objects in the environment is mediated, by some sort of causal chain or reliable mechanism. This sort of mediation is appropriate when there is a gap between our core epistemic situation and the phenomena in question, as in the case of the external world: we are connected to objects in the environment from a distance. But intuitively, our access to consciousness is not mediated at all. Conscious experience lies at the center of our epistemic universe; we have access to it directly.

I disagree. Because consciousness is an effect from qualia, and qualia is a primary cause with self-experience being secondary and non-direct but being once removed (mediated) from the actual material object, then individual consciousness is secondary also. An effect is always a secondary property, with causation being primary. In order to know an effect, we must mediate with our cognitive apparatus. Consciousness can be thought of as an outgrowth of qualia and as an outgrowth, it is not direct. Although we directly do have experience, that experience is not of the absolute nature of qualia – it is the attribute of qualia processed through our Will, recognition and cognitive identification. (except in the case of Awe – see discussion of awe previous to this).

Non-Reductionism

Chalmers, at this point in Part III, takes us on a journey of his considerations of a working model of consciousness, the cornerstone of which is his contention that based on all the above conceptual arguments, then only a non-reductionist version of consciousness is feasible. It is non-reductionist

precisely because once you admit that there are fundamental, non-divisible, monadic properties, you by definition have become non-reductionist – they are not reducible.

Even if consciousness cannot be reductively explained, there can still be a theory of consciousness. We simply need to move to a nonreductive theory instead. We can give up on the project of trying to explain the existence of consciousness wholly in terms of something more basic, and instead admit it as fundamental, giving an account of how it relates to everything else in the world. Such a theory will be similar in kind to the theories that physics gives us of matter, of motion, or of space and time. Physical theories do not derive the existence of these features from anything more basic but they still give substantial, detailed accounts of these features and of how they interrelate, with the result that we have satisfying explanations of many specific phenomena involving mass, space, and time. They do this by giving a simple, powerful set of laws involving the various features, from which all sorts of specific phenomena follow as a consequence.

Consciousness does also. In fact, in physics the formula E=MC squared is the mathematical explanation of the transformation and interaction of the material with energy. Most likely there is a not unsimilar formula for the transformation of energy into consciousness, and one into space-time.

The cornerstone of a theory of consciousness will be a set of psychophysical laws governing the relationship between consciousness and physical systems. Consciousness supervenes naturally on the physical. This supervenience must be underwritten by psychophysical laws; an account of these laws will tell us just how consciousness depends on physical processes (And vice versa. These are the psychophysical laws of qualia). Given the physical facts about a system, such laws will enable us to infer what sort of conscious experience will be associated with the system, if any (though it's doubtful that it could give a detailed specific rendition of a specific qualia and therefore no inference about what sort of conscious experience is associated with that system). These laws will be on a par with the laws of physics as part of the basic furniture of the universe.

There need be nothing especially supernatural about these laws. They are part of the basic furniture of nature, just as the laws of physics are. There will be something "brute" about them, it is true. At some level, the laws will have to be taken as true and not further explained (because they are fundamental or at least, stem from a fundamental entity). But the same holds in physics: the ultimate laws of nature will always at some point seem arbitrary. It is this that makes them laws of nature rather than laws of logic.

But they are not, at the very base – arbitrary. The only reason they might seem arbitrary is that we have not reduced them down to the basic fundamental state of energy. There is nothing arbitrary about energy and how it operates or how its laws work.

If it turns out that in the study of consciousness one needs to take some aspect of the relationship between physical processes and consciousness for granted, then so be it. That is the price of constructing a theory.

There's no reason to take it for "granted", not if it bears explanation, which it does. That would just be giving up and ultimately, though frustratingly, not solving for the hard problem. An explanation akin to the theory of energy and its tri-level dimensional distribution, which includes consciousness, does the job.

Physics does not content itself with being a mere mass of observations about the positions, velocities, and charges of various objects at various times; it systematizes these observations and shows how they are consequences of underlying laws, where the underlying laws are as simple and as powerful as possible. The same should hold of a theory of consciousness. We should seek to explain the supervenience of consciousness upon the physical in terms of the simplest possible set of laws.

Of course, it may be that in the quest for such theories, there will be developments that change our conception of an ultimate theory. It may be, for example, that we will find overarching laws that subsume the phenomena of both physics and consciousness into a grander theory (that is the theory of energy), just as we found a theory that subsumed electricity and magnetism, and as physicists are now searching for a theory that unifies all the basic physical forces. Perhaps there will be developments that are more surprising still.

All this metaphysical grandeur is well and good, one might reply, but how does it cash out in practice? In particular, how can we discover the psychophysical laws that will constitute a theory of consciousness? After all, there is an enormous problem for a theory of consciousness that does not confront a theory of physics: the lack of data. Because consciousness is not directly observable in experimental contexts, we cannot simply run experiments measuring the experiences that are associated with various physical processes, thereby confirming and disconfirming various psychophysical hypotheses. Perhaps these laws, even if they exist, might remain in an unknowable limbo? Indeed, it might seem that the un-testability of any theory of consciousness that we might put forward would relegate such theories to the status of pseudoscience.

This doesn't necessarily have to be the case though. Thought experiments and the like, pure logic, can substitute for experimental discovery. Witness Einstein before many of his theories were proved with experiments – they were based on pure logic (thought experiments, before that). It is true that those "discoveries of thought and logic" will be hard, if not impossible, to test physically – but that does not make them not true, or even unprovable necessarily. It is possible, conceivable, that in order to understand an unknowable phenomenon like consciousness, one must give up confirmation, but not give up trust in probable belief. I note that, artificial intelligence may end up utilizing "truths" we find philosophically about consciousness, and so be confirmed experimentally.

It seems to me to be ironic that in the same way religious beliefs must be based on faith, due to their unprovability, which is due to its unknowable essence, its phenomenal essence – so it is the case with consciousness, which shares this aspect of unknowability with religion. In the final analysis, only material aspects are materially provable, phenomenal aspects must, by definition, be proved with phenomenal logic – phenomenal logic being of an order that we do not relate to – we relate only to the physical due to our prejudicial vantage point <u>from</u> the physical.

Yet if we can believe and have faith, and a certain belief, a belief that has certainty, if believed by enough scientists and philosophers and ordinary people, this can substitute for mathematical and physical proof. Though we do not reject that there may possibly still be a mathematical proof (as E=MC squared was). Remember, if you reflect deeply about energy – you find that it has a physiophenomenal aspect, and therefore E=MC squared is a case where the phenomenal is represented by a mathematical term!

Some other plausibility assumptions might include the following: that fundamental laws are homogeneous in space and time; that conscious experience depends only on the internal physical state of an organism.

This points to and agrees with our contention that consciousness is interrelated and interactive with space and time (as well as with the physical) and that the space-time aspect is indeed homogeneous, it is ubiquitous. The above contention that consciousness may depend only upon an internal physical state may or may not be a truism as qualia's impingement upon consciousness may be an outside agent only, or is more likely a combination of inner physical make-up and outside phenomenal agency.

Of course, this reliance on first-person data and on plausibility constraints means that a theory of consciousness will have a speculative character not shared by theories in most scientific domains. Because rigorous intersubjective testing is impossible, we will never be quite as certain that our theories are on the right track. Except maybe in the case, in the future developments, of artificial intelligence.

But we may be sure enough – especially if it is simple and elegant and doesn't upset any physical apple carts – that it fits in with everything quite neatly and has the same characteristics of known theories – like symmetry, simplicity, elegance, unification, etc. The last piece in a jig saw puzzle that has been constructed except for that piece, allows you to absolutely know all the aspects of the missing ("untestable") piece.

Awareness

The most promising way to get started in developing a theory of consciousness is to focus on the remarkable coherence between conscious experience and cognitive structure. The phenomenology and the psychology of the mind do not float free of each other; they are systematically related. The many lawful relations between consciousness and cognition can provide much of what we need to get a theory of consciousness off the ground. The best way to get a handle on this relationship is to focus on phenomenal judgments (we call this "phenomenal recognition"). These judgments are part of psychology, but they are closely bound up with phenomenology, and as such they provide a bridge between the domains. By thinking about these judgments and the way they function in our own case; (as I have proposed; a "bridge" or a "linking") we can come up with a number of principles connecting the phenomenal to the psychological. I too call for the need for a "bridge", which I supply as the Will (conscious attention) and recognition of inner qualia.

The most basic obvious principle of this sort is the one I mentioned in section 1: our second-order judgments about consciousness are by and large correct. We can call this the reliability principle. When I judge that I am having an auditory sensation, I am usually having an auditory sensation. When I think I have just experienced a pain, I have usually just experienced a pain.

The most fundamental coherence principle between consciousness and cognition does not involve second-order phenomenal judgments. Rather, it concerns the relationship between consciousness and first-order judgments. The principles with which we will deal here concern the coherence between consciousness and awareness (we call it attention, awareness being receptive while attention being interactive and targeted; but his general point is correct – that they are first order judgements). Recall that awareness is the psychological correlate of consciousness, roughly explicable as a state wherein 85

some information is directly accessible and available for the deliberate control of behavior and for verbal report. I supply this as the Will (conscious attention) and recognition of inner qualia.

Where there is consciousness, there is awareness (attention). My visual experience of a red book upon my table is accompanied by a functional perception of the book (inner qualia matching/recognition). Optical stimulation is processed and transformed, and my perceptual systems register (recognize) that there is an object of such-and-such shape and color on the table.

To a certain extent I do not agree though – I think that all the time we are experiencing consciousness but we are not all the time experiencing awareness. Consciousness is over-arching and subsumes awareness or attention.

In the same sort of way, we can handle hallucinations and other cases of sensations without a real object being sensed. Although there is no real object for the contents of perception to concern, there is still representation in our perceptual system. (which is why we can conjure up the color and perception and experience of green without the object being there. What he calls our representation in our perceptual system, I call our inner qualia).

Note that the principle is not that whenever we have a conscious experience, we are aware of the experience. It is first-order judgments that are central here, not second-order judgments. The principle is that when we have an experience, we are aware of the contents of the experience. When we experience a book, we are aware of the book; when we experience a pain, we are aware of something hurtful; when we experience a thought, we are aware of whatever it is that the thought is about. It is not a matter of an experience followed by a separate judgment, as might be the case for second-order judgments; these first-order judgments are concomitants of experiences, existing alongside them. They are thus the closest we can come to the <u>direct</u> experience of qualia, and it is attention to it that results in recognition, not awareness – again, awareness being passive and thus not <u>causing</u> recognition. Note also that Awe is fully direct experience with no transitional need – a first-order judgement.

The tie between experiences and second-order judgments is much more indirect: although we have the ability to notice our experiences, most of the time we notice only the contents of the experience, not the experience itself. (that is closer to the concept of awareness – in that sense, awareness is a secondary judgement) Only occasionally do we sit back and take notice of our experience of the red book; usually we just think about the book. Where second-order judgments are infrequent, first-order judgments are ubiquitous. The most direct link is therefore the link between consciousness and first-order judgments. Or at least the most direct we can come close to a truly direct experience – there still, even in consciousness, is a subject to object relationship. This lasts throughout our lifetime, but becomes fully direct after death. In a sense, death removes "the mask" of separation!

So far, I have argued that where there is consciousness there is awareness (attention). But the arrow goes both ways. Where there is awareness (attention), there is generally consciousness. However, consciousness is ubiquitous. Attention is not necessarily. Therefore, consciousness is more basic.

We can therefore build this directness of access into a revised notion of awareness. According to the revised notion, non-occurrent thoughts do not qualify as part of the contents of awareness, but occurrent thoughts do. Correspondingly, we should expect that occurrent thoughts will be associated

with experiences (if attended to), even if non-occurrent thoughts are not. This is just what we find. My non-occurrent thought that Clinton is president has no impact on my phenomenology, but an occurrent thought to that effect will be associated with an experience. To see this, note that there is something it is like to think to oneself that Clinton is president; if I had not been thinking that thought just now, it would have been like something subtly different to be me. This is so only as long as the "thought" is coincident with attention to it, if I am only "aware" that Clinton is President (I have received a thought that this is the case) then I do not have an experience of it — it just passes within a cognitive functional process with no "Bing"). Awareness is simply receptive.

If what he says is true then everything would not be considered qualia; qualia would be restricted, subservient, and not absolute – depending somewhat on a cognitive awareness state – but qualia is unrestricted and absolute. Thus, without the bridge there would be no qualia or consciousness recognized. But that is not the case. The bridge only serves to "realize" the qualia (be aware that it is qualia – recognize it as a first order judgement) – but qualia impinges upon our psyche no matter what – we are just not aware of it as consciousness, we do not attend to it, and in fact simply stop at awareness. We call it awareness when in actuality it is conscious experience that is qualia, not simple receptive awareness.

It is ironic – awareness is considered to always exist and consciousness not so, but in reality, qualia always exists and the awareness is more contingent upon some type of cognitive reception, a type of attention. This irony is due to our overwhelmingly strong grounding in physicality; that something which is phenomenal at base is mistaken as physical due to our bias toward the physical.

This is the principle of structural coherence. So far, we have a hypothesis: where there is consciousness, there is awareness, and where there is (the right kind of) awareness (attention), there is consciousness. The correlation between these can be made more detailed than this. In particular, various structural features of consciousness correspond directly to structural features that are represented in awareness. An individual's conscious experience is not in general a homogeneous blob; it has a detailed internal structure. My visual field, for example, has a definite geometry to it. There is a large red patch here, with a small yellow patch in close proximity, with some white in between; there are patterns of stripes, squares, and triangles; and so on. In three dimensions, I have experiences of shapes such as cubes, experiences of one thing as being behind another thing, and other manifestations of the geometry of depth. My visual field consists in a vast mass of details, which fit together into an encompassing structure. Crucially, all of these details are cognitively represented, within what we can think of as the structure of awareness

I don't see this as a structure of awareness – I see it simply as a structure of functionality without any consciousness or experience. It is not until a certain phenomenal type of recognition, brought on by attention (the Will) occurs, that experience accompanies awareness and cognition. We see an entire scene but may only be aware of a few components of that scene (and maybe attend to even fewer).

The size and shape of various patches is represented in my visual system, for example: perhaps in a fairly direct topographic map, but even if not, we know that it is represented somehow. It must be, as witnessed by the fact that the relevant information is available to guide the control of behavior.

Behavioral guidance may be a defining or important feature of the receiving or awareness of sensory input; however, it may not necessarily take a visual form in order to initiate behavior and more

importantly, may not necessarily be accompanied by consciousness. One may experience a tornado coming, through attention to sensory input, but may react to something other than the visual stimulation. Perhaps fear might over-ride a full "viewing" of the scene and it is fear, not visuality, that instigates behavior. The point is that we do not know what guides behavior for sure – it is not the be all and end all defining consciousness or experience as Chalmers contends.

This therefore seems to suppose that consciousness does not determine behavior. I reject that if this is what he is saying. Consciousness, qualia – through causation, has a specific logical order to it and thus, that logic, could very well drive behavior, but it does so through cognitive processes.

In principle, someone with complete knowledge of my cognitive processes would be able to recover all of these structural details. The geometry of the visual field can be recovered by an analysis of the information that the visual system makes available for later control processes (not necessarily as demonstrated in the above example of a tornado) The very fact that each of these details can be reflected in the behavioral capacities of the subject (which is not necessarily so)—a subject might trace the various structural details with arm movements, for example, or comment on them in verbal reports—implies that the information must be present somewhere

Qualia is always present – but qualia are not purely information, though it may have information as a secondary causative part of it. Being always present it exists as our experience – that is the somewhere, not a physical location, but rather a ubiquitous space-time phenomenal one.

Of course, the details of the analysis would be very tricky, and far beyond present-day methods, but we know that the information is there. In this way we can see that the structure of consciousness is mirrored in the structure of awareness

Again – not so, awareness may miss a lot of detail, it is attention that results in behavior that stems from consciousness and the "mirroring" is recognition oriented. Other than that, behavior can stem simply from functional neuronal circuit-like programming. The point is that behavior is not an indicator of consciousness.

But it is interesting to see that the structure is currently being worked out in detail in studies of the visual system (see Hardin 1988 for discussion). We might say that in this case there is a difference structure in our conscious experience (a space of differences between possible experiences) that is mirrored by a difference structure in awareness: to the manifold of color experiences and relations among them, there corresponds a manifold of color representations and corresponding relations among them.

This steers us away from the salient point about conscious experience, about qualia – and that is that qualia are of itself only and that the only correlation to inner functionality (like a visual cortex) is one of projection, like a projector, not one of experience. Our brain and its apparatuses only record, those apparatuses do not experience. The apparatuses are not conscious.

I do somewhat agree though, and that is why we cannot experience colors that do not exist in our cortex's abilities (we see the rainbow colors only) – why we do not see x-rays as a color, etc. Therefore, it seems true that consciousness is limited to our inner ability or functionality. However, it may be conceivable that we do "see" x-rays – we just don't recognize the form it takes. Maybe it's a sound, or

a feeling or something we can't recognize but is nonetheless there, maybe non-visually in other words. Maybe it is something under our recognition radar. Since the qualia exists, which we know from the fact that other animals have the ability to recognize boundary sensations like ultra-violet light, then very possibly something exists as a qualia from outside us, we simply do not process it in a known, recognizable way due to limited functionality – but it's there.

It therefore would be considered "unconscious". Unconscious could mean a form of consciousness that lacks attention (as dreaming is) as opposed to having nothing to do with consciousness. Perhaps it is consciousness without attention. For example; when we dream, all sorts of sensory images appear to us (we may even be "aware" of them), however we are not conscious of them, we do not experience them, because the Will is not engaged, we do not employ attention in a dreaming state (though we do somewhat when we are waking from a dream, in a semi awake state). That is when and why we remember a specific dream, because attention is starting to operate.

We therefore do not generally experience our dreams. The ones we do are those that we are waking from, and in fact we call this <u>near</u> consciousness. Other occurrences demonstrate unconsciousness or the absence of consciousness also. For instance, if we come upon a scene where we do not have the ability to recognize it within our cognitive processing, often "new" scenes never encountered before. Perhaps a first time look at a tornado, or a robbery – we react with what we call <u>Awe</u> – we are stupefied, and we have no conscious relation to it, we have suspended experience (or the recognition thereof). The qualia are there, we just are not attentive to it (no Will) because we do not cognitively know how to apply attention to that which we have not learned previously – i.e.: there is no recognition process available.

In general, this sort of reasoning leads us to the conclusion that any detailed structure that one might find in a phenomenal field will be mirrored in the structures represented in awareness. As I discussed previously, I find this not to be so, though I do admit to inner qualia being "mirrored" of sorts in our inner functionality.

I will call this the principle of structural coherence. Maybe it is structurally coherent, however it is not conscious – though I to strongly ascribe coherence as a key element of recognition or matching. This is a central and systematic relation between phenomenology and psychology, and ultimately can be cashed out into a relation between phenomenology and underlying physical processes. As we will see, it is useful in a number of ways. In my view, calling it structural coherence mis-represents the nature of the mind-body issue, which I contend is one of non-structural or phenomenal coherence (to qualia).

A tricky problem case is provided by experiences during sleep. It is plausible that we have experiences when we dream (although see 1978b), but reportability and any role in the control of action are missing, as action is missing entirely.

He has a different slant on what is happening during dreaming as you can see by reviewing my discussion of dreaming previous to this. While I connect the missing of sleep experiences to the non-usage of the Will or attention, he connects it more to the lack of action or behavioral control. In his explanation though he wouldn't be able to account for near waking states where in spite of the fact that you do experience your waking dreams, you still lack behavioral control over them. Is this however an indication by him that he believes that Will is connected with the ability for action? Will certainly seems to have a lot to do with behavioral control.

It is not required that a content actually play a global control role to be conscious, but it must be available to do so. This seems to square better with the properties of experience. For example, we experience the fringes of our visual field, but most of the time these do not play much of a role in global control; they are merely available to do so if required. Many of the noises we experience may pass without leaving significant effects on memory, behavior, and the like, but the information could have done so.

This goes to the question; Is inner qualia present if we are not aware of it? Or is there consciousness only when there is access and attention to it, and if so, where is the inner qualia then. Does inner qualia only exist upon coherence with attention (the Will) or is it always there and just not accessed? What I believe is that it is always there, we do not however always tap into it through our Will or attention due to many subtle factors (like level of attention for one example).

Another functionalist account is Rosenthal's (1996) proposal that for a state to be conscious is for it to be the object of a higher-order thought. In the language I have been using, this means that a first-order state has content of consciousness precisely when there is a second-order judgment about it. This is considerably stronger than my proposal, in the same sort of way that Dennett's proposal is stronger. On the face of it, there is little reason to believe that we form second-order judgments about all of our experiences, including experiences of every detail of the visual field, of background noises, and so on (I fully agree).

If there is a mediating function (like Will and recognition) then when it is not operating there is no coherence and thus no consciousness (though an over-riding feeling of being conscious is always in the background it seems to me -a sort of "buzzing attention" or recognition of simply being).

He submits that the availability for global control (action) is a prerequisite of consciousness. This may then point again to the Will, but in this case, use of the Will (global control) is akin to consciousness on automatic pilot. Does the using of the Will beget a constant stream of qualia? I don't think so, it seems to be the opposite, it seems as if when using the Will, we are on an automatic shut off of diversionary thoughts, we are focused, and that focus assures that we are connected to the action we have sought (the attention to it), and thereby connected to qualia. So, action does seem to be connected to consciousness, but only in the sense that it is open to conscious experience but not assured of it. It is only assured of being available. The bridge has been formed, it is on auto pilot and is open to accept qualia experience. Possibly the "experience" of the Will is a quale itself – in its own right – a feeling of Will, an experience of "Will". This goes along with the concept, which I endorse, that everything about us is borne and caused by qualia which includes our inner qualia.

A good example of the Will leading and accepting consciousness and qualia is that of peripheral vision. Usually, we are unaware of it and not conscious of it. A direct experience, attention to consciousness is missing. However, in circumstances when it is needed (like let's say in basketball, etc.) then the action of focusing attention on your peripheral vision (the Will) results in conscious experience of that visuality. The circumstance, born of a specific need, determines the usage of attention. Consciousness in this sense might be considered as an evolutionary response to survival in that it is need that triggers the "necessary" attention on what reality is out there at the moment. But that contention is just a possible function of consciousness, not necessarily the only use of it. Nonetheless, awareness of our surroundings is certainly of paramount importance to an organism. When a fly rushes away as your

about to hit it; it undoubtably is doing so reflexively, but it seems entirely possible that it is doing so consciously, and even that it was consciousness of the experience that was happening (that of a hand coming toward it) that caused the action, the behavioral control.

One might wonder how any story about physical processes could be used to shed light on features of experience, given what I have said about the impossibility of reductive explanation. The principle of structural coherence allows us to understand what is going on. In essence, this principle is being used as a background assumption, to provide a bridge from features of physical processes to features of experience. If we take for granted the coherence between the structure of consciousness and the structure of awareness (attention), then in order to explain some specific aspect of the former, we need only explain the corresponding aspect of the latter. The bridging principle does the rest of the work. Experience, consciousness, qualia is more direct and brute than that, and it is what it is, with or without "explanation".

So, if the coherence principle is taken for granted, a functional account of visual processing serves as an indirect account of the structure of phenomenal color space. The same method can be exploited to explain many other features of experience. It may mimic the qualia in structure, but it isn't experience – no experience comes just from functional structure – that's the whole point!

He is trying to explain a "structure of consciousness", however, there need not be a structure because consciousness may simply be brute, direct experience all to itself with no structure per say, and attention and recognition derives the structure from "out" of the inner qualia experience. So, one might say that consciousness has potential structure or that it causes structure but is not structural otherwise. So, consciousness is the causative aspect while attention and recognition are the responsible agents for the effect which accounts for the structure that comes from out of the experience. It is causation that drives recognition and thus reportable functionality.

If what I have said before is correct, these claims are a little too strong. First, this method does not explain the intrinsic nature of a color experience (which is brute and direct). Second and more important, no account of the structure of awareness explains why there is any accompanying experience at all, precisely because it cannot explain why the principle of structural coherence holds in the first place. By taking the principle as a background assumption we have already moved beyond reductive explanation: the principle simply assumes the existence of consciousness and does nothing to explain it.

The Bridging Principle and Coherence

Within these limits, the principle of structural coherence provides an enormously useful explanatory relation between the physical and the phenomenal. If we want to explain some apparent structure in a phenomenal domain—say, the relations we find between our experiences of musical chords—then we can investigate the functional organization of the corresponding psychological domain, taking advantage of insights from cognitive science and neuroscience to reductively explain the structure of awareness in that domain. But it still does not explain the experience, just the content of it. I can explain the content of red to you — the electromagnetic waves, the retina, the visual cortex — but I cannot make you understand the quality that is red, only experience can do that. Amen.

I believe that conscious experience has no deeper functionality other than "it is what it is" with no secondary logical extension of itself. I believe that it is the psychological reaction to consciousness that places upon it all the logic, inference and secondary aspects (the effects). Conscious experience just is. The only reductionist path one can take from psychological to phenomenal is to derive the "what it is" of the phenomenal from the "way it is" of the psychological. The phenomenon itself cannot be reduced into anything other than its qualia. It is non-reductionist.

The answer must be that whenever conclusions about experience are drawn from empirical results, a bridging principle linking physical processes to experience is doing the work. A bridging principle will give a criterion for the presence of consciousness in a system, a criterion that applies at the physical level. Such a principle will act as an epistemic lever leading from knowledge about physical processes to knowledge about experience. This is the Will and phenomenal recognition. Phenomenal recognition of an inner quale being the physical effect of phenomenal causation, Will being the bridging principle.

Bridging principles are so crucial here that it makes sense to be explicit about them. There is a sense in which anyone who appeals to a bridging principle—which means anyone who draws conclusions about experience from external observations—is doing "philosophy," as bridging principles are not themselves experimental conclusions. Nevertheless, philosophy or pure thought can lead to accepted conclusions even if not physically through experiment, i.e.: proven.

The bridging principle that I have recommended is that of the coherence between consciousness and awareness (attention): when a system is aware of some information (attends to it through the Will), in the sense that the information is directly available for global control, then the information is conscious. Here again he uses "global control" as the salient factor – a position I do not adhere to.

What are the neural and information-processing correlates of consciousness? This is one of the central questions about consciousness that empirical research is often taken to address. Various empirical hypotheses have been put forward. For example, Crick and Koch (1990) put forward the hypothesis that certain 40-hertz oscillations in the cortex are the neural correlates of experience. Baars (1988) can be interpreted as suggesting that a global workspace is the information-processing basis for experience, with the contents of experience corresponding directly to the contents of the workspace. Farah (1994) argues that consciousness is associated with "high-quality" representations in the brain. Libet (1993) puts forward a neural "time-on" theory, in which consciousness is associated with neuronal activities that persist for a long enough time, with a minimal duration of around 500 milliseconds. There have been numerous other proposals in a similar vein.

Because we lack an "experience meter," we must always rely on such indirect criteria, and the criteria of reportability and awareness seem to be the best we can do. Again, he stresses "reportability" which I do not necessarily subscribe to. I believe that experience just is onto itself whether reportable or not. I believe that an experience can occur but no reportability is associated or happens with it – like peripheral vision. It follows that we can only have empirical evidence for a link between a process N and consciousness if we already have evidence for a link between N and awareness.

As regards the physical theories about what consciousness is – they all fall short of accounting for the <u>qualitative</u> experience itself. There certainly is a "how", the challenge is more to discover the "why" and to find out how a physical "how" can result in a phenomenal experience. Physical theories cannot do this without an explanation of a bridge.

It seems natural to say that the central correlation between physical processing and experience is the coherence between consciousness and awareness (attention). What gives rise directly to experience is not oscillations or temporally extended activity or high-quality representations, but the process of direct availability for global control. Again, he cites the global control principle – it is the indirect linkage, the bridge, with the direct availability that results in experience, not "global control". As regards coherence, it is the coherence between the inner and external qualia that allows for this availability through recognition.

Schacter (1989) suggests that there may be a single mechanism, such as a module, but this is only one way things might go. It might turn out that a role in global control is always facilitated by some central mechanism (such as Baars's global workspace), but on the face of it, it is equally likely that processes of many different kinds are responsible at different times for securing the appropriate availability, even within a single species or a single subject.

I believe that physical theories alone, without accounting for a bridge or a linkage, cannot give full explanation of consciousness. However, I do believe that physical theories can account for global behavioral control, unlike what Chalmers believes.

We should therefore not expect the search for a neural correlate of consciousness to lead to the holy grail of a universal theory. We might expect it to be valuable in helping us to understand consciousness in specific cases, such as the human case: learning more about the processes underlying awareness will certainly help us understand the structure and dynamics of consciousness for example. But in holding up the bridge from physical processes to conscious experience, pre-experimental coherence principles will always play a central role. The coherence I suggest is that of the coherence between recognition and the matching inner quale (to the outer one received).

So far, I have mostly considered coherence within a range of relatively familiar cases, involving humans and other biological systems. But it is natural to suppose that these principles of coherence may have the status of universal laws. If consciousness is always accompanied by awareness, and vice versa, in my own case and in the case of all humans, one is led to suspect that something systematic is going on. There is certainly a lawlike correlation in the familiar cases. We can therefore put forward the hypothesis that this coherence is a law of nature: in any system, consciousness will be accompanied by awareness, and vice versa. Except that the system must have a specific capability to bridge. But I believe it must be made up organically from energy's secondary aspects, so a machine would not have consciousness, even though a bridge might have been developed.

It is natural to infer an underlying law: for any system, anywhere in space-time, the structure of consciousness will mirror and be mirrored by the structure of awareness. That indicates a direct, one to one relationship between awareness or attention and consciousness or qualia. I do not subscribe to that and believe instead that there is no direct relationship, only a secondary, once removed, process and experience. The exact nature of what qualia is will remain a mystery for the most part, but its effect (experience and self-consciousness) can be discovered.

A proposed theory of consciousness psychophysical law is simple, well-motivated, and has the coherence principles as a consequence (not a consequence, which is an effect, but rather as a cause), then that may provide good reason to accept it.

What, then, are the grounds for accepting the coherence principles as laws? The basic evidence comes from the correlations in familiar cases: ultimately, for me, from my own case. The apparent correlations between awareness and consciousness in my own case are so detailed and remarkable that there must be something more than a mere chance regularity. There must be some underlying law. The only question is what law? This law must entail that in my own case, awareness will always be accompanied by consciousness, and vice versa, and further that the structures of the two will correspond. Here, once again, this misses the point about consciousness and qualia being "brute" and not subtle or mediated functionally. Yet it does address the mediation of them.

It is very plausible that some kind of awareness is necessary for consciousness. Certainly, all the instances of consciousness that I know about are accompanied by awareness (I agree except in the case of awe). There seems to be little reason to believe in any instances of consciousness without the accompanying functional processes. If there are any, we have no evidence for them, not even indirect evidence, and we could not in principle. It therefore is reasonable to suppose on the grounds of parsimony that wherever there is consciousness, there is awareness. What about Awe – there does not seem to be a functional process involved, in fact it is the lack of a functional process that accounts for Awe.

This may account for individual awareness but does not allow for the concept, so important to all of this, of universal awareness/consciousness. Without the universal reality of qualia there would be no individual awareness/consciousness. So, there is consciousness universally but not necessarily awareness that accompanies it. Awareness or self-consciousness exists as a special individual case of coherence with the universal and reliance on attention borne of phenomenal recognition.

Don't forget that universal awareness, as brought out in "Mirrors", is a direct consequence of cause-and-effect which orders qualia into a logicalness (see previous discussion for a more detailed analysis of this). Because, other than cause and effect, the universal qualia are non-directional and have no inherent or a priori logic to them – the logic is brought about through the ordering brought on by cause and effect. In a sense; the structure of the universal logic is not the same as our logic.

Also, addressing Chalmer's contention that awareness always exists with consciousness – I don't believe that is so. One can eliminate all forms of awareness and yet there is still something left; something organic, buzzing, humming, feeling, existing - which has nothing to do with whether we are aware of it or not, whether there is information or not. Consciousness is like a background "sticky paper" which cements "things" onto it, but when those things are not existent then the background "sticky paper" is still there. In this sense ... consciousness is receptive and yet it also imparts that which was received, the consciousness itself though is ever existent. Our awareness is simply those things which got stuck on it.

The problem was the assumption of materialism in the first place. Once we accept that materialism is false, it becomes clear that the search for a physical X-factor is irrelevant; instead, we have to look for a "Y-factor," something additional to the physical facts that will help explain consciousness. We find such a Y-factor in the postulation of irreducible psychophysical laws. Once we have imported these into our framework, the intuition that consciousness is a further fact is preserved, and the problem is removed.

Qualia and The Invariance Principle

Chalmers now goes deeper into the subject of qualia, a subject that is the whole crux of all of this. Qualia is the gateway into the phenomenal. Without qualia there is no experience and without experience we are just zombies. It is thus the study of qualia that can give to us the fullest understanding of what consciousness is.

Nonetheless, even though Chalmers has correctly identified the importance of qualia, his theories about it are frustratingly disappointing. It seems to me that he has turned his back on his earlier correct insights and betrayed them. Those insights, which he repeatedly expressed, said that there is a phenomenal quality to consciousness which material or physical systems cannot begin to reach or experience. Over and over, he gave examples of other reductive, physical theories and refuted them on that basis. He insisted on a non-reductionist philosophy. He called this "natural dualism". Now he is propounding just the opposite – that a physical, functional system can realize and experience consciousness without any phenomenal input. He has turned his back on the whole point and has defaulted (I guess due to the pressure to explain and come up with a workable theory) to a reductionist, physical only theory.

To quote Chalmers himself:

Almost everything in the world can be explained in physical terms; it is natural to hope that consciousness might be explained this way too. In this chapter, however, I will argue that consciousness escapes the net of reductive explanation. No explanation given wholly in physical terms can ever account for the emergence of conscious experience. This may seem to be a negative conclusion, but it leads to some strong positive consequences that I will bring out in later chapters.

But he then turns his back on this and proclaims that consciousness can be brought about through purely physical systems. He now states that; "One can believe that consciousness arises from functional organization but is not a functional state". I obviously, whole-heartedly disagree.

<u>Functional Organization as Consciousness – Fading & Hidden Qualia</u>

Chalmers; I claim that conscious experience arises from fine-grained functional organization. More specifically, I will argue for a principle of organizational invariance, holding that given any system that has conscious experiences, then any system that has the same fine-grained functional organization will have qualitatively identical experiences. According to this principle, consciousness is an organizational invariant:

The invariance principle is far from universally accepted. Many people of both dualist and materialist persuasions have argued against it. Many have held that for a system to be conscious, it must have the right sort of biochemical makeup; if so, a metallic robot or a silicon-based computer could never have experiences, no matter what their causal organization. Others have conceded that a robot or a computer might be conscious if it were organized appropriately but have held that it might nevertheless have experiences quite different from ours. Neither of these is the case – a physical, functional system must bridge coherently between the phenomenal and the psychological. Zombies

and computers do not have a bridge – the Will. Additionally, if it did, it needs to have one that has developed organically from energy' attributes.

Corresponding to these two views, there have generally been two kinds of argument against the invariance principle. The first kind comprises arguments from absent qualia. In these arguments, a particularly bizarre realization of a given functional organization is described, in a system so outlandish that it is natural to suppose that the qualities (qualia) of conscious experience must be absent. A popular example from Block (1978) is a case in which our organization is realized in the population of a country (as in Chapter 3). Surely, it is argued, that could not give rise to conscious experience. If not, then consciousness cannot arise from functional organization. We agree with Block here.

The invariance principle holds that functional organization determines conscious experience by some lawful link in the actual world. Actually, in the phenomenal world – which is part of the actual world.

Maintaining the natural possibility of absent and inverted qualia in the face of these thought experiments requires accepting some implausible theses about the nature of conscious experience, and in particular about the relationship between consciousness and cognition.

Many have pointed out that while it may be intuitively implausible that such a system should give rise to experience, it is equally intuitively implausible that a brain should give rise to experience! This is not so and very myopic, the whole point of this treatise is to show how a brain achieves this and to demonstrate that there needs to be a wider concept that transcends mere physicality.

Whoever would have thought that this hunk of gray matter would be the sort of thing that could produce vivid subjective experiences? And yet it does. Of course, this does not show that a nation's population could produce a mind, but it is a strong counter to the intuitive argument that it would not.

A nation of homunculi is nowhere near the dynamics of a brain which has a phenomenal ability to recognize – that is; to recognize the phenomenal. That ability has to do with the coherence of the make-up of a brain with the make-up of qualia, inner qualia – both must be born from energy – a nation of robots is not so born. In addition, such a nation would have to be comprised of hundreds of billions of inhabitants as the brain is comprised of neurons.

Of course, as Block points out, we know that neurons can do the job, whereas we do not know about homunculi. I disagree that neurons can do the job. That is putting the cart before the horse. Neurons are the cart; qualia are the horse- the horse comes first.

Given this situation, we can construct a series of cases intermediate between me and Robot such that there is only a very small change at each step and such that functional organization is preserved throughout. We can imagine, for instance, replacing a certain number of my neurons by silicon chips. In the first such case, only a single neuron is replaced. Its replacement is a silicon chip that performs precisely the same local function as the neuron.

This is called "fading qualia". However, there can be no "replacement" of the bridge of recognition and Will. They are not a purely "physical" construct – it borders upon both the functional and the phenomenal (which is why it can be a bridge). No amount or configuration of silicon can take the

place of them nor can a complexity of programmed silicon ever induce willfulness and attention. These are of consciousness itself, and being so, defy silicon programming. So that, yes, one might replace the neurons with silicon functionality that is the same, but it still will not have replaced the phenomenal side of the Will and recognition. These are not purely born from neurons but are rather formed through a duality and coherence with the phenomenal qualia effects. No study of the functional make-up of them can ever unearth where the phenomenal link is located or comes from – one must have the knowledge of how the phenomenal works, how it links to and from the universal – neurons will not be able to divulge this.

The fact is that if you replaced every one of your neurons exactly the same with a silicon chip, thereby having all of the same functionality, you will at some level or quantity of replacement, lose the phenomenally connected ability to use the Will or attention or recognition. This is because their functionality, on a conscious level, is caused by qualia interacting with a phenomenal process which can only be born organically from the interaction of qualia with inner qualia – both phenomenally constructed from energy, not through a computer-like program. Attention or the Will transcends physicality and is triggered by processes that are not inherent in a program – it is triggered from outside influences that require a physio-phenomenal linkage to a phenomenally based quale.

Attention <u>needs</u> an object to attend to. The "psycho" part of that linkage is a phenomenal reactiveness to outside influences. Being phenomenal and thereby coherent, silicon programs cannot cohere and interact and are thus rendered impotent. Remember, it is not the physical reality of billions of neurons that supervenes control of our attention; attention is supervened by a phenomenally based coherence. Once the silicon chips have fired, their physicality is gone, as is their influence – not so with the phenomenal side of recognition and the Will. This concept is obviously controversial and maybe to some counterintuitive. Nonetheless, to believe in artificial intelligence is ultimately to reject selfhood – it is intuitively doubtful, and I maintain that one should not discount the value of intuition.

Between me and Robot, there will be many intermediate cases. Question: What is it like to be them? What, if anything, are they experiencing? As we move along the spectrum, how does conscious experience vary? Presumably the very early cases have experiences much like mine, and the very late cases have little or no experience, but what of the intermediate cases? This is sort of contradictory, after all if you believe that an exact duplicate of silicon can produce consciousness as does ours, then there is no reason to believe it would ever be different than ours. It would have to have a different configuration of silicon in order for that to be the case.

There are no cases however. Yes, one can replace a single neuron or a small grouping of neurons and not affect conscious experiencing, but that is only because those replaced neurons had nothing to do with the linking and recognition of conscious experience in the first place. Consciousness is not "within a neuron": or group of neurons – that is simply a form of Pan-Psychism. Neurons are not conscious. Consciousness does not reside in a functional location. Once it is triggered (recognized, experienced) it does so everywhere phenomenally, not physically. Consciousness is not a physical thing.

Given that the system at the other end of the spectrum (Robot) is not conscious, it seems that one of two things must happen along the way. Either (1) consciousness gradually fades over the series of cases, before eventually disappearing, or (2) somewhere along the way consciousness suddenly blinks out, although the preceding case had rich conscious experiences. Call the first possibility fading qualia and the second suddenly disappearing qualia.

It might be then (if these fading qualia have consciousness, especially at the beginning of silicon replacement) that as long as the bridge is "intact" then the rest of the functionality can be silicon. But what is the bridge "made of". Why not a silicon Will? If Will itself has an outside phenomenal component, a universal component, then that would be all that is needed and the inside components theoretically could be silicon. However, if all was just silicon, no Will could be induced (due to noncoherence to an energy derived constituent, recognition and the Will being such) and no consciousness could be experienced. At the point that the silicon make-up takes over the "program" to control attention, the ability to cohere is lost. Attention at that point will just be more recorded thoughts and will not have the ability to phenomenally link to qualia – the attentive recognition process will not operate. There is an organic element to the ability to cohere and recognize.

He doesn't address that the silicon will have to have had all the previous experiences in order to build a functional system that is capable of consciousness. If this is true then consciousness arises gradually as we catalogue our experiences (starting as a baby), as our inner qualia accumulates. Consciousness then evolves into fullness. So, a sudden replacement negates all the organic programming that has occurred in the past and which adds to the subject's ability for conscious coherence.

In the China example we get people to step in one at a time instead of chips, making sure that they set off outputs appropriately in response to inputs. Eventually, we will be left with a case where the entire population is organized as my neurons were, perhaps even controlling a body by radio links. At every stage, the system will be functionally isomorphic to me, and precisely the same arguments apply. Either conscious experience will be preserved, or it will fade, or it will suddenly disappear. The latter two possibilities are just as implausible as before. We can conclude that the population system will support conscious experiences, just as a brain does. Such a nation would have to be comprised of hundreds of billions of inhabitants as the brain is comprised of neurons.

Again, this misses the point of selfhood. The self is not made from an amalgamation of neurons (or Chinese people). The self is a result of phenomenally linked experiences that define a holistic organism. The "hum" of consciousness is an a priori ability of a brain linking to the externally phenomenal qualia. That "ability" does not come from physicality alone, it comes from the causation of qualia interacting with a psychophysical construct. The "Bing" of Penrose is in the psychophenomenal recognition that occurs between qualia and a physically suspended Will. The Will cannot become phenomenal (link) through a purely physical cause.

The fading qualia argument suggests that my functional isomorphs will have conscious experience, but it does not establish that isomorphs will have the same sort of conscious experience. That is, functional organization determines the existence or absence of conscious experience, but it might not determine the nature of that experience. If you believe that an exact duplicate of silicon can produce consciousness as does ours, then there is no reason to believe it would ever be different than ours. It would have to have a different configuration of silicon in order for that to be the case.

This he calls Inverted Qualia; however, I think that inverted qualia are possible and is dependent upon the outside of the bridge. Synesthesia patients experience this all the time. And what of them? They point to an internal functioning that coheres with an external one and is rich for exploration. Inverted qualia are a function of a diverted or a changed recognition path, the recognized consciousness still "Bings". It is the Bing that is the crux of this argument and of consciousness overall.

The major concept to understand as regards artificial consciousness is that it takes all three dimensions (space-time, materiality and consciousness or qualia) to enable experience and thus selfhood. In all artificially constructed paradigms, consciousness must be there a priori. Our organic make-up is formed from all three dimensions. We process through the physical dimension. However, we cannot proceed with that process unless we have the other two dimensions inherent within us. We effectually tap into consciousness a priori and into space-time a priori also. When we "invent" a brain, we leave out those two dimensions in our construction and leave them impotent as to experiencing consciousness or location and duration. Silicon is only physical and lacks consciousness coherence and space-time coherence.

This completes my analysis and at times, critique of Chalmers' writings. I now move on to an analysis of some other noteworthy author's renditions of this subject. The first of which are some brief thoughts on consciousness extracted and commented from: The Hard-Terminological Problem of Consciousness by Alexander Boldachev.

ALEXANDER BOLDACHEV

Does Consciousness Exist?

Boldachev starts off by stating; there are only two certitudes with regard to consciousness: (1) it is tied to the subject, it is always the consciousness of some subject, and (2) the existence of consciousness is fixed only by the givenness of objects within it; it is characterized by a multitude of objects that exist within it.

This then rejects that consciousness can be without a subject or object, i.e.: out there in the universe to be grasped or attended to which is what I propound. He effectively is saying that consciousness is dependent upon something else, while I believe it is fully independent of our physical make-up (although it is interactive), but dependent upon the external qualia (universal consciousness).

Consciousness is a form of the relation between the subject and objects. Such an understanding of the ontological status of consciousness automatically leads us to the following conclusion: consciousness as a non-object cannot possess properties, attributes, or states; it also cannot be a property or state of any object. I reject this view categorically – this would mean that consciousness isn't even a phenomenological occurrence, I only agree if the object is qualia.

The claim that any extended object is given to us in consciousness should be understood exclusively and only as an indication of that object's distinction in space. Such objects include feelings, emotions, and thoughts – we perceive them as being extended in time, that is, they are distinguished in consciousness not simultaneously, like spatial things, but purely sequentially. This doesn't make sense since one can be having thoughts, or a thought, while simultaneously having an emotion about it.

Is consciousness physical? Consciousness is neither physical, nor chemical, nor physiological, nor psychological, nor cognitive, nor spiritual – we cannot say that it "is" at all. That is, it is not a phenomenon and does not exist at all. Everything that exists, from the physical to the spiritual, exists in consciousness. That means that whatever object we select, whatever property we examine,

whatever event we record – it will be neither consciousness itself, nor a property of it. We only run across physical, chemical, physiological, cognitive, and spiritual phenomena, properties, and events. And where is consciousness? Consciousness is where we are given those objects, properties, and events. Such is the ontological status of consciousness – it is a form of the relation between the subject and objects.

This has all sorts of contradictions in it. The" where" he talks about, are precisely the "objects" he mentioned above. Since these "objects", according to him, include inner states (non-material) then "the where" it is given, again, presupposes a given <u>from</u> – that from being universal and not personal. Personal could not be given from the outside unless the outside object has properties (which he rejects).

Does consciousness affect behavior? The conception of "influence" implies the presence of two objects and reflects the fact that the state of one object depends on changes in the state of the other. This is what I call "super-position" as taken from quantum theory.

It is clear, after all, that everything listed above – physiology, the psyche, the cognitive system, Will – do not relate to consciousness itself; all of these systems are given in consciousness and, undoubtedly, exert influence on each other and have a causal relationship.

It is only pre-supposed that they do not relate to consciousness itself. This is only true when one claims that material things have consciousness but does not entertain the concept that consciousness is a separate "state" from material or psyche. It would be forever a closed loop of physicality with no escape from it and therefore no consciousness. It is almost a form of Pan Psychism, which I reject as a valid concept.

Once again, this is only true if one considers whether consciousness is an object (thereby forming the certainty that it is not; i.e.; is not non-material). But this is a myopic view of things as simply material or (space) or time oriented and does not consider that it can be a third, unknown entity (emanating from energy) – the three derivatives of energy – time, space and consciousness itself. All his arguments are refuted as soon as you consider consciousness as part of an object in the form of qualia, but one of a different nature than that of space or time or the material.

Does the brain generate consciousness? He assets that "Consciousness, in its ontological status as a non-object, cannot exert influence on anything. However, if consciousness is an object (of a different nature as brought out above - qualia) then it certainly could be generated, and is, but we contend this is the bridging of universal consciousness to individual consciousness. Without the universal (the non-material) then individual consciousness could not exist. It is generated in the brain through its bridge, through the Will, with the universal, through matching qualia within the brain.

Why does the functioning of the brain involve consciousness? It turns out that of all the seven questions, only this one relates directly to the problem of consciousness. Essentially, it expresses the hard problem of consciousness as formulated by Chalmers: why don't we live in the dark? Of course, we can obtain a formal answer to this question as well: simply because the subject is a subject only in its own world of objects, and the givenness of these objects implies the presence of a space/forms/means for their givenness – consciousness. This is only a different way of admitting the

fact that consciousness is an object (just of a different, and external nature than materiality, or thoughts, psyche, etc. – it is made of qualia).

Conscious and Unconscious Actions

Now we will expand our subject area and examine psychological behavior and human activity from the standpoint of the narrow interpretation. Some manifestations of the human psyche indicate that it can make appropriate actions in an unconscious state, without their representation in the "picture" of consciousness.

He goes on to give the example of a sleep walker avoiding walking into walls (or a hypnotized person). We contend however that ordered and logical actions do continue to occur in their relatively proper order (evidence dreaming logical sequences), but they are still unconscious due to the lack of Will or Attention applied to them (again, Will being the bridge or connection to universal consciousness, to qualia).

<u>The Role of Consciousness in Activity</u>. What predetermines human behavior – data that comes from outside (light, sound, tactile, and other data), or elements of the "picture" of consciousness?

It is the cause and effect ordering of qualia from universal consciousness that determines (but does not predetermine) human behavior. It is not pre-determined because the Will, mixed with probability (the probability curve of possible choices) is what will determine choices, behavior – and ultimately karma (in the form of decoherent waves, or coherent ones, the non-efficient use of energy – or the efficient use of energy – see previous discussion on morality).

<u>Active Paradigm</u>. To carry out activity, we use the internally coherent "picture" of consciousness built by our psyche. And it is built, even in usual, everyday life, on the basis of some principles which are not very understandable to us ourselves. It is not understandable simply because it is not being defined as universal and universally attainable.

Essentially, a sleepwalker is analogous to the philosophical zombie of thought experiments. Physically, the zombie sometimes acts far more precisely than the person in consciousness. Yet his actions are, on the one hand, primitive, and, on the other hand – and this is what is most important – <u>cannot be used for the execution of the next action</u>: not an individual and certainly not a collective one. This is the role of the Will and the effect of operating without one. The Will determines action, while a sequential combination of cognition, memory and the Will determines the "next" course of action contextually.

GARY HATFIELD

The Reality of Qualia

He starts off: I am a qualia realist. I believe that specifically phenomenal qualia are present in perception. Thus, when we see a yellow lemon in good light, we typically see that it is yellow by experiencing a yellow quale. We can experience (an instance of) the same yellow quale in the absence of the lemon, or of any yellow object. In my view, not only is the experience of the lemon's quality real

something many will grant but the experienced quale is real, in the sense that it exists as perceiverdependent phenomenal content.

<u>A perfect statement</u>. Also, if indeed a quale is present in perception then there must have been an inner quale that was transmitted from within the brain. It is reasonable that this transmission occurred from memory, which means that externally sourced qualia is recorded and duplicated with memory for later matching and retrieval. I have been waiting for someone to say the above statement that Hatfield said for over 40 years!!

Aristotle thought that color is a real quality, and that, during perception, the 'form' of that color is transmitted from the object to the soul. Democritus is said to have held that the atoms that compose things aren't really colored, but that color arises as a merely subjective effect of atoms on perceivers. Philosophical reflections on color properties and color experience intensified during the early modern period, when Descartes and Locke (among others) developed a distinction between primary and secondary qualities. Discussion has again intensified in recent years, raising issues in metaphysics, epistemology, and philosophy of mind. I find it interesting that earlier conceptions about perception agree fully with my theory and Hatfield's theory.

He then defines the various types of beliefs about perception.

Objectivists argue that color is a mind-independent property of objects. They say that, when we perceive a colored object veridically, we perceive a physical property that the object possesses independently of all perception or experience of it (ours or any other). They identify this physical property with the object's color. Currently, the most popular form of objectivism is called 'representationalism', according to which the phenomenal content of color experience is nothing but the representation of a physical property (Dretske, 1995; Tye, 1995, 2000, 2003); visually representing a physical color property is a phenomenal experience, which contains no subjectively supplied content. This fits my belief system.

Subjectivists argue that color is not a property of objects, but an internal state of the perceiver: color reduces to the subjective content of a perceiver's experience. By contrast with objectivists, they think that the notion of color has legitimate reference only to visual experience, and they deny that objects are really colored. In their view, color experience is a kind of standing illusion, although a useful one. Of course, this begs the question of where does the <u>quality</u> of color come from, why is it the same in everyone – and a host of other consequential questions.

Dispositionalists also define color in relation to color experience, but that definition allows a notion of 'object color' that ascribes a color property to the surfaces of objects in virtue of the relation between objects and the color experiences they produce. They argue that color, considered as a property of objects, consists in a relational disposition, or its causal basis; it is a property that surfaces (and light sources) have of causing perceivers to have experiences that exhibit various phenomenal characters (Johnston, 1992; Peacocke, 1984). For dispositionalists, color as a phenomenal feature of experience is conceptually primary; they then use experienced color to define the related notion of color as a property attributed to objects. Here again, this brings up many challenging questions as it moves the hard problem to the realm of objects that have phenomenal properties – i.e.: how can a physical object have phenomenal properties? (The hard problem moved to objects). I contend that qualia are a

special case that encompasses both physicality and phenomenality. This is due to its interaction with spacetime (physio-phenomenal) and materiality (physical).

Consequently, to understand what color is as a property of an object The Reality of Qualia (or of an object's surface) requires that we understand object surfaces, illuminants, eyes, brains, and color experiences. One doesn't need to reflect on or understand any of these things in order to have color perceptions or to classify things by their colors. But in order to understand what color is in objects, and how it is involved in color perception, we must consider these factors. Including colors that we call up in our minds without an actual object being there.

The standard view had been that color is a 'real property' in the Aristotelian sense. This meant that in the surfaces of things there is a property, color, which is transmitted to the mind 'without its matter' during perception (Simmons, 1994). On this view, the mind receives a copy or instance of the color property that inheres in the surfaces of things. Once transmitted into the brain (according to medieval Aristotelian accounts), this instance expresses itself as a color experience (Hatfield). I submit though that color is experienced way before the brain records it, unless that is if you consider the recognition that of brain recording. Also, here again, it must be transmitted from within the brain as a quale. On the whole though I agree with that standard Aristotelian viewpoint.

Locke construed them as not 'in the mind'; rather, they are physical properties of objects (properties consisting in configurations of the primary qualities such as size, shape, and motion) that have the 'power' to cause specific types of color sensations in perceivers (Locke, 1690, II.viii.1013). For an object to possess color as a secondary quality is for it to possess a power to cause the sensation or experience of color in perceivers. But what is this power constituted of and where does the quality come from? My system contends that they are interactively of the mind and of the object, both physically and phenomenally in both cases.

Although dispositionalists may speak of phenomenal color as representing the surface properties of an object, they (unlike representionalist objectivists) do not think that the phenomenal content of color experience is reducible to the bare representation of a physical property. And it is not in the sense that it is once removed from direct interaction and thus no reduction would result in a physical object. I believe that it is once removed from the actual object. That is; Qualia is a separate thing. I too believe that it cannot be reduced back to the object itself – it is separate from the object, a separate qualitative essence born from the separate dimension of universal consciousness (qualia).

Objectivists often put this point by saying that color experience is 'transparent' (Tye, 2000, pp. 4551). To them, this means that there is no mediating subjective element of experience that constitutes phenomenal color. Rather, the physical property, present to the mind representationally, constitutes the phenomenal color (Dretske, 1995, pp. 8893.) The key word here is representationally, by which I contend that they are referring to qualia. Also, the phrase "present in the mind" equates exactly to what I refer to as inner qualia.

They are both right and wrong here. Wrong in the sense that there is a mediating element (the bridge and the Will). Right though in that the representation (for lack of a better word) constitutes phenomenal color (qualia) – but not of a physical nature or cause (the quality of color is not solely a physical thing and thus could not be born or caused by a physical thing).

Dispositionalists are committed to there being a relation between two distinct things: a phenomenal color and a surface property. They think that the phenomenal color is causally correlated with physical surface properties, and that it represents or signifies the surface properties of things, without transparently making those properties present in consciousness so as to constitute phenomenal color.

This is partially right in that they are a causal relation between phenomenal color and the surface of objects, partially wrong in that they do make (or cause) those properties to be present in consciousness, just in a different form or quality.

I maintain that color properties should be classed relative to color perception or color experience. This means that theories of color as an object property must begin (conceptually) with color experience. I do not agree with this, he is basically putting the representational color (the qualia) as an effect of the psyche – it is just the opposite.

Both the existence and character of the object quality must depend on the experience itself. By saying that the object quality depends on experience, I mean that the phenomenal characters of color qualia are features of how colored objects appear to us, of the experience, that is, by which we see colored objects. That seems contradictory to his original statement that object quality depends (is caused by) experience. He is now saying that the phenomenal characters of qualia (as the cause) result in our experience of them. Also means that we should construe the qualitative character of color experience as developing out of the subject's capacities for phenomenally presenting objects. That accounts for only one half of the integration – the cognitive half, but leaves out the integration of the qualia portion of it.

I think that the subject's capacities do play a part, which is why we can't see x-rays. I also agree that color qualia are a feature of how color appears to us and are not the entire nature of qualia. Qualia presents color to us but has more properties than that phenomenally that we do not link to or interact with. But overall, I agree with this.

Evolutionarily, color experiences are a kind of phenomenal infusion into pre-existing perceptual presentations of surfaces. The phenomenal character of this infusion is not generated by its representational content (as in objectivist representationalism). Rather, we may imagine that mutation generates it, and that its etiology lies in the capacities of neural structures to generate phenomenal characters. This totally sidesteps the hard problem and credits neurons as determining phenomenality without explaining any linkage or bridge from a neuron's physicality to phenomenality. It also does not define those structures – is it each neuron, a group of neurons, a neuronal process?

This misses the key point about qualia when he says that the neurons generate phenomenal characters. If that were the case then we wouldn't need qualia to generate the color experience and zombies and computers could experience colors – which I reject. He is avoiding addressing the hard problem. The correct statement would state that our neuronal substrate includes memorable quale of the originally viewed qualia. In one sense it is memory emanating a quale into our consciousness, but in another sense, there is a substrate within our neuronal make-up that records qualia when it is originally first viewed and then will match it, and therefore recognize it, when it subsequently appears again later – that recognition spurring individual consciousness. I do agree however that there must be a capacity for the neural structures to generate phenomenal characters, and it does so within the memory structure and matching or recognition process.

From the present theoretical point of view, color experiences are blank signs for the color properties of objects. They contain the content that a thing has a color property of a specific kind (yellow, red, etc.), but they do not provide any further details. (This is the neuronal substrate I spoke off above). We, as theorists, can correlate the signs with their causal conditions under a physical description and we can determine that the color property in objects is a disposition to produce color experience. However, evolution established those correlations in the visual system through the trial and error of natural selection. It did not build into color experiences the content that they result from depositional properties. This may or may not be the case. It might be that inner qualia are invariant throughout evolution.

This indicates that "color" evolved in no necessarily specific inter-relationship (like a rainbow allegedly has). That is: red evolved, as did green, as did blue – and their relationship, in the phenomenal sense, had no correlation of continuum with each other. Green could have evolved as another type of quality, but green is what happened. But this would then bespeak that green qualia do not exist – rather a certain quale does exist, but our phenomenal perception of its green quality is tied to an interaction with the qualia "trigger" and the interpretation physically – with that trigger. So therefore, there would be a distinct and separate phenomenal agent, other than the triggering qualia, that accounts for our seeing that qualia as "greenness". Two qualia's so to speak - one from the physical aspect of the object (the material object's aspect – external object-oriented qualia) and one from the physiophenomenal aspect of our interpretive (recognition) trigger – a related but separate different quale particular to ourselves. Not necessarily purely physical, but proto-physical from the interaction of our Will (attention) and recognition of this "inner" qualia. This may seem circular; however, it would be one account for the difference between object qualia and perceptive qualia. It is akin to a mirror inwardly reflecting the outward qualia proto-physically. But on the other hand, it doesn't seem to account for why it is that everyone has the same perception of colors. Wouldn't there be physical differences in each person's make-up and therefore different types of perceptions?

Phenomenal colors are aspects of our experience under which we experience surfaces, and they are arbitrary signs by which we distinguish surfaces. Such signs represent things that in fact have causally relevant physical properties but they are not representations of physical properties as such: they do not carry in their representational content a specification that cause them (I don't see the difference between those two statements). They present the surfaces of objects in accordance with the distinctive dispositional base objects have for producing color experiences, but we need not construe them as representing the specific physical properties that constitute a particular dispositional basis. Color qualia, as signs, simply present the object as having a color property of a kind that differs from other color properties. Accordingly, phenomenal colors are arbitrary signs for the properties of surfaces I disagree that they are arbitrary. I consider the color aspect of qualia as an absolute character of that qualia. Again, why are colors ubiquitous between different peoples?

Of course, there would need to be boundaries: if a yellow object is seen under aberrant lighting conditions (say, under monochromatic blue light), then it appears dark bluish grey and not yellow, and so it doesn't appear to have the object color it does. Or if a red object is seen by a nonstandard observer (say, someone who is red-green colorblind), then it may not generate a red-experience. These are violations of standard conditions and normal observers. This doesn't bear on the absolute nature of the qualia, just on the apparatus used to filter that color which becomes a new quale. The apparatus itself (like a blue filter) has its own quale it is emanating, one that is a result of yellow

filtered through blue. A colorblind person simply doesn't have the physical apparatus to construct the ubiquitous quale of red, in the case given.

The dispositionalist says that the property of color in an object is a dispositional basis of its surface for causing experiences of phenomenal color of a certain kind. It also takes for granted that color experiences fall into phenomenally distinguishable groupings. Thus, observers can readily distinguish phenomenal yellows from phenomenal reds. To this extent, color properties are partially revealed in experience. From our color experience (in standard conditions) we can tell that two objects have different colors (yellow vs. red). We know how yellow and red look. We can't tell, just by looking, what yellow and red are as properties of an object surface. That is the whole functionality though of qualia in a sense. Qualia allows us to differentiate automatically. In this sense, qualia are a direct mediator between experience and object. But yes, we do not know the exact make-up of qualia, but I submit that they are fundamental and non-reducible and come from the disposition of energy as it manifests kinetically.

The following is a good analogy of what is happening:

THE DARK ROOM

A man wakes up in a room with no light. We say that he "sees" blackness. Though we say that blackness is the absence of color, black nonetheless has a quality that is black. Therefore, the quality that is black has the same "type" of quality as that which is red or green, it's just not red or green – it is black, a quale of black. But we can say with confidence that blackness has the same type of color-like quality as does red, green, etc. Therefore, the absence of color has a quale associated with it.

Light now suddenly floods the room. The man now sees whiteness instead of black. White can also be considered a quale induced color by the same token as black was. This man now has the varied experience of two colors, both of which share a certain similarity of color-ness even though the color quality is starkly different.

Now the light that has flooded the room is physically cut in half by a prism. By physically what is meant is that the actual wave lengths of the light have been reduced to shorter wavelengths by one half. Thus, there now is a certain absence of part of the previous white wavelength. Absence of a wavelength, as was demonstrated in the black room (which had no wavelengths at all) produces a certain quality of color and a certain level of "diminished" light, again another separate quale of one half. There is thus a new quality that is starkly different than white (by one half physically). This will have a color quality also, but it must have one that is different than white and is different than black.

What that color quality is, is a function of the <u>inherent</u> emanation of what a one-half wavelength gives off – the quale. It is determined not by a set of physical relational laws (as mixing colors physically have), rather it just is a certain color quality or quale. That quality is an indivisible, fundamental quality (let's name it red) and exists a priori as red. It is not born from a mixture of white and black or any other mixture of colors. It is not some other random color or physical mixture of colors. Each gradation of color along a continuum has its own quale. It manifests as a fundamental quality (qualia). There is no more reason to the "choice" of red than there was reason for black appearing as blackness or white as appearing as whiteness. The nature of the existence of separate color qualities is that they differ in their material (physical) make-up. But their inherent causative

make-up is absolute, fundamental and inherent. They may mix and produce different colors following certain rules in the physical world, but their <u>quality</u> remains separate from those rules or physical effects.

Given the three constituents of energy, that of materiality, spacetime and qualia (or consciousness), the qualia aspect being seemingly arbitrary is no more mysterious than the arbitrariness of the physical make-up or the spatial make-up. They all are reflective (not in the color sense) of the nature of energy in different states. One might "call" that arbitrary but that is only because one doesn't inherently understand them. Subjectively seemingly arbitrary but phenomenally absolute.

In this case, the state of half wavelength differs in all three realms; materially as one half, spatially and timewise as taking up a specific shape and time, and consciously as having the qualia we call red. They are all tied together. Were energy a different physical (or material) constitute and a different shape-time then the qualia would be of a different color quality. Color characteristics are formed as a combinational interaction of all three dimensions.

So, yes, an object has a specific color to it and we see it as red or green or blue, through our interaction with the inherent qualia that exists when we recognize it through our interaction with the phenomenal aspect that is consciousness (or qualia). I would call this phenomenalistic objectivism.

A key concept in the above explanation of the primacy and brute specificity of a particular perceived color is that there is no mechanical relationship to the phenomenality of the colors associated with various wavelengths. The quality of the specific color red exists irrespective of the physical object. There may be a correlation to that object, but the redness quality is of the qualia alone – it is not reductive to the object itself.

A good example of this concept is that of the rainbow. A rainbow, physically. Is a continuum produced by successive changes in wavelength such that there is a logical physical relationship to the continuum. So, a neighboring diminished or increased wavelength does appear next to each other in the rainbow. This results physically, in the nomenclature that a rainbow is constituted by ROY G BIV (In order: Red, Orange, Yellow, Green, Blue, Indigo, Violet). However, and this is the main point; the phenomenological qualia of the colors have no such inherent relationship continuum. It just as well could have been that the wavelengths spelled out BIG V YRO (Blue, Indigo, Green, Violet, Yellow, Red, Orange) as the continuum's phenomenological aspect and quality of colors. We relate to ROY G BIV simply due to the inherent quality of those colors with those physical wavelengths and the order of those qualities are arbitrary in the sense that there was no a priori connection based on that continuum.

So, red is the quality of red, not because of some physiological relationship to a varying wavelength aspect, but simply because it is brute red at that particular wavelength. Witness synesthesia, it shows that the wavelength is not inherently a certain quality, but rather a certain quality of its own making.

Hatfield continues and underlines the above; One of the chief sources of this problem comes from thinking that, if phenomenal red is real, then we must ascribe the property of being red to something, according to a normal substance/property ontology. So, if phenomenal color is real, something must really be colored, or have the color property, in just the way that the surfaces of things have the property of being red according to a kind of naive realism or updated Aristotelianism. If a sense-datum

does not bear the property, then a brain state or some other entity must have it, or so the reasoning goes. Again though, this does not account for synesthesia.

I find a home for qualia in experience: I construe them as intentional contents, in Brentano's original sense. Brentano originally posited the relation of intentionality to obtain between an act of perceiving and an entity that is present to consciousness (I call that recognition). According to Brentano, this entity exists 'in' the perception, whether it exists externally to the mind or not. I do not agree with that though – it exists in the quale inwardly. Our recognition is more of a phenomenal connection to that quale, not a physical connection to our cognitive pre-programmed perceptive process.

One interesting issue that comes up regarding my contention that it is an inner quale that results in the phenomenal recognition of "yellow" and it is this inner quale that is responsible for us being able to close our eyes and see yellow even when there is no yellow object there. This indicates that previous to our first interaction with an object that is yellow (has a yellow quale), when we are newborn, we would not be able yet to see yellow with our eyes closed, because there has been no construction of an inner yellow quale, from the external yellow object, with which to recognize yellow from. If that is true then my theory holds nicely.

Thus, the fact that we can be aware of phenomenal red as a qualitative content of our experience entails that phenomenal red exists intentionally: it is 'presented' to us in consciousness (by an inner quale). Brentano held that our being aware of the phenomenal red in this way is neutral with respect to the further question of the relation between mental contents and "external" physical objects (Brentano, 1874/1973, pp. 92100). It can't be neutral simply because it must be caused by something, somewhere, at least initially (see comment in paragraph just above).

Objectivist representationalists (e.g., Dretske, 1995; Tye, 1995, 2000), these latter theorists, use the term 'intentional' simply to describe a representational relation between a state of mind and an object or object property, and they equate phenomenal content with representational content in order to do away with the dispositionalists' phenomenal qualia and with the Brentano intentionality of such qualia. In my words, they are ascribing attention as the linkage with the phenomenal aspect of qualia.

As Hatfield develops the theory further, both shape and color present external properties under a subjective aspect: both show subjective characteristics. In the case of shape, we can observe the subjective aspect in the compression of Euclidean space with distance from the standpoint of the perceiver, as we see in the case of a road with parallel sides, whose sides nonetheless converge phenomenally within the visual field. These 'phenomenal aspects' are characteristics of our experience, but neither our brains nor external objects possess the properties exactly as presented. That is the wonder of Brentano intentionality. The roads converging is a function of the interaction of geometry with our physical apparatus and is a priori such. Furthermore, they are a function of a quale also, in his case a geometric converging quale!

As regards ontology, I propose that we simply include phenomenal red among the phenomena of nature. That is, I propose that we accept that the phenomenal is itself real. I agree.

From there, we might ask how we should explain its existence and characteristics. If we don't accept substance dualism (a position that is of no help at all in explaining phenomenal qualities), we should assume as a working hypothesis that phenomenal red depends on brain activity. However, we should

not treat that hypothesis as a necessary condition on the acceptability of phenomenal red into the domain of natural phenomena. At present, no one has any idea of how to explain phenomenal red in terms of brain activity. There is some knowledge of the brain correlates of sensations, but there is no direct explanatory relation or intelligible connection between brain activity and phenomenal content. This is the crux of the hard problem. My theory does assert an explanatory connection however – it is the duplication and subsequent matching (recognition) of the external qualia of red to the internal quale.

DERIK SCHILLER

Hidden Qualia

Schiller writes; I will argue that we should be open to the possibility that there is more to our current conscious experiences than we are aware of. Beliefs about our experiences are cognitive in a fashion that the experiences themselves are not. There may still be necessary connections between our qualia and our beliefs about our experiences, but such connections are not inherent in the nature of qualia itself. I agree, they are of our cognitive judgements. However, the causation is directly from qualia.

While the existence of unattended qualia is controversial (Prinz, 2000; Papineau, 2002; Schwitzgebel, 2007), it is intuitively plausible that we have some qualia that we do not attend to. I believe that without attention, no qualia are presented to us because it is attention that enables us to connect to qualia – to recognize it. However, the question of whether qualia still exist in us is an open one – I believe it does inwardly (an inner quale). It bears on the possible relationship between qualia and unconsciousness. And even more so on how exactly unconsciousness exists functionally.

It is plausible that although it might be especially difficult to direct our attention to a given quale, that quale still constitutes part of what it feels like to be us. This is conceivable, and in my theory might contribute to what I call the "overall hum of consciousness" that we always have – whether conscious of it (attending to it) or not.

Upon introspecting a rose-red quale, we might come to believe that we are experiencing a rose-red quale, a red quale, a colored quale, or some visual quale or other. Introspection might also lead us to different levels of confidence about our higher-order judgments. I believe that each of those are separate - a separate quale, yet it is true that our judgement of conscious impressions can alter how we consider the singular identity of that inner quale. There is therefore an integration of phenomenal conscious experience with cognitive judgement, however, they are separate things and the judgement is purely from our cognition not from our consciousness (it sort of "guides" us to the appropriate inner quale associated with that judgement). The consciousness is brute and direct with no mediating cognition. This constitutes a sort of loop where the initial recognition of the singularly identified quale, which mirrors the external quale completely, is transformed through the Will into a conscious experience. But this conscious experience is further "looped" through recognition and matching with cognitive associated judgements, which then result in a cognitive physio-phenomenal experience. In that way, cognitive judgements are additive to conscious experience.

I don't believe that qualia and judgements go hand in hand. We experience qualia, we judge things only cognitively and without resort to qualia – it is intellectual (though they do interact as described in the above paragraph). Our experience is brute and is isolated from our cognitive thinking, though <u>can</u>

<u>be additive</u>. We may evaluate a certain experience, but that doesn't suppose that the experience needs evaluation to be an experience. In fact, evaluation is removed from experience and exists in an isolated realm of intellectuality, although it certainly can be caused by experience, nonetheless.

Schiller believes that qualia is produced inwardly – though it is true that there are hidden qualia, but it is hidden from the outside interaction, it is not "bridge-able" by our Will apparatus – our Will is thus limited.

Chalmers (Chalmers, 1997, 10) speaks of one possible variety of such qualia when he describes a qualitative sense of self as a "background hum" that is fundamental to consciousness. This is what I believe – but does that mean we are tapping into a constant <u>quale</u> of universal consciousness? Maybe so! – White qualia so to speak (like white noise that includes all frequencies).

Each of the other three accounts suggest that justification requires some sort of intellectual focus on the relevant aspects of one's experience. Feldman took this to be attention, and Fumerton and Sosa to be direct acquaintance, though direct acquaintance is a bit mysterious, it is plausibly very closely related to attention; we are not directly acquainted with qualia (or any correspondence between them and our beliefs) to which we cannot attend. I agree, but we are "acquainted" in the sense that we recognize it - the inner quale.

Cognitive theories of attention suggest that attention involves shifting our neural resources so that some cognitive processes have better access to important cognitive channels. By gaining access to those channels, they can exert a greater influence over our higher-order intellectual faculties (and to the external and internal qualia). They can come to play a greater role in our deliberations or enter into our memories (that is the nature of inner qualia). We attend to visual experiences by strengthening the effect that visual processing regions have on our higher-order faculties and we attend to what we hear by strengthening the effect that the auditory processing regions have. This is a good description of how the Will operates, causing attention.

Maybe that is so but it has little to do with how attention relates to qualia. Those supposed "channels" that we would have greater access to while in a state of attention, would still not cause qualia to be experienced. Those channels might possibly have some intimate connection with the recognition that is all important for interacting with the outer and inner qualia though.

MICHAEL TYE

More about Qualia

He starts off stating; If you are told to focus your attention upon the phenomenal character of your experience, you will find that in doing so you are aware of certain qualities. These qualities — ones that are accessible to you introspectively and that together make up the phenomenal character of the experience are standardly called 'qualia'. Though recognition of the inner qualia causes attention more than attention causes recognition of inner qualia.

Other philosophers (e.g, Dennett 1987, 1991) use the term 'qualia' in a more restricted way so that qualia are intrinsic properties of experiences that are also ineffable, nonphysical, and 'given' to their

subjects incorrigibly (without the possibility of error). To my thinking both of the views above are correct.

He asks; Which mental states possess qualia? The following would certainly be included on my own list. (1) Perceptual experiences, for example, experiences of the sort involved in seeing green, hearing loud trumpets, tasting liquorice, smelling the sea air, handling a piece of fur. (2) Bodily sensations, for example, feeling a twinge of pain, feeling an itch, feeling hungry, having a stomach ache, feeling hot, feeling dizzy. Think here also of experiences such as those present during orgasm or while running flat-out. (3) Felt reactions or passions or emotions, for example, feeling delight, lust, fear, love, feeling grief, jealousy, regret. (4) Felt moods, for example, feeling elated, depressed, calm, bored, tense, miserable. (For more here, see Haugeland 1985, pp. 230-235). I agree with all of this – everything is made up of qualia.

Galen Strawson has claimed (1994) that there are such things as the experience of understanding a sentence, the experience of suddenly thinking of something, of suddenly remembering something, and so on. Moreover, in his view, experiences of these sorts are not reducible to associated sensory experiences and/or images. Strawson's position here seems to be that thought-experience is a distinctive experience in its own right. He says, for example: "Each sensory modality is an experiential modality, and thought experience (in which understanding-experience may be included) is an experiential modality to be reckoned alongside the other experiential modalities" (p. 196). On Strawson's view, then, some thoughts have qualia. (This is also the position of Horgan and Tienson (2002).) And my position also.

Should we include such propositional attitudes as feeling angry that the house has been burgled or seeing that the computer is missing on the list? These seem best treated as hybrid or complex states, one component of which is essentially a phenomenal state and the other (a judgment or belief) is not. Thus, in both cases, there is a constituent experience that is the real bearer of the relevant quale or qualia. Agreed.

These views capture one of my most comprehensive beliefs. I strongly suspect that qualia are part of <u>everything</u> we think, feel and sense. That we experience the entire external <u>and</u> the internal through the recognition of qualia that is "behind" all of it. Qualia, in my theory, is in everything that we are and perceive. This is how I come to the conclusion that we are a part of the universal, that our soul is part of the universal soul since the universal soul is made up of the totality off all those qualia and we have identical copies of them innwardly.

One possible explanation is that that there is a realm of subjective, phenomenal qualities associated with color, qualities the intrinsic nature of which Mary (Mary is a character who had never seen anything but black and white, but theoretically knows everything about color, just hasn't experienced it) comes to discover upon her release, as she herself undergoes the various new color experiences. Yes, this corresponds to my theory that until you have your first interaction with the external qualia, you will have no matching inner qualia and correspondingly, no knowledge about it. The inner qualia is constructed from external qualia and is not a prior in us.

Some physicalists respond that knowing what it is like is know-how and nothing more. Mary acquires certain abilities, specifically in the case of red, the ability to recognize red things by sight alone, the ability to imagine a red expanse, the ability to remember the experience of red. She does not come to know any new information, any new facts about color, any new qualities. This however might just be semantics and depends on the definition of what "to know" means and when she comes to know it (upon first encounter with it). She definitely would come to know new qualities.

An alternative physicalist proposal is that Mary in her room lacks certain phenomenal concepts, certain ways of thinking about or mentally representing (inner qualia) color experiences and colors. Once she leaves the room, she acquires these new modes of thought as she experiences the various colors. I do not agree with physicalist viewpoints. In this case I submit that she doesn't acquire new thoughts alone, rather she acquires new experience and the knowledge follows.

It appears then that there is no difficulty in holding both that Mary comes to know some new things upon her release, while already knowing all the pertinent real-world physical facts, even though the new experiences she undergoes and their introspectible qualities are wholly physical (they are not). In an ordinary, everyday sense, Mary's knowledge increases. But they are not wholly physical – this is where the physicalist is mistaken.

Of course, this response does not apply to those philosophers who take the view that qualia are irreducible, non-physical entities. However, these philosophers have other severe problems of their own. In particular, they face the problem of phenomenal causation. Given the causal closure of the physical, how can qualia make any difference? That is because casual closure does not exist – casual (i.e., cognitive processes) remain open to any input including input from phenomenological causes through recognition which depends on outside input (and thus is not closed).

We are each so much smaller than the China-body system that we fail to see the forest for the trees. Just as a creature the size of a neuron trapped inside a human head might well be wrongly convinced that there could not be consciousness there, so we too draw the wrong conclusion as we contemplate the China-body system. This statement fails miserably since we have hundreds of billions of neurons, China has only a couple of billion!

This is interesting because if you agree with the China body hypothesis then it is an easy step to contemplate that the universe as a whole may be conscious and its functional aspects are some specific organization of cosmic objects (planets, stars, galaxies, black holes, etc.) – we just are too myopic (or small) to see the big picture and to have the knowledge of how those components interrelate – but components aside – the physical make-up of the universe (akin to the China theory) could in that scenario have phenomenal consciousness, qualia, etc. (and maybe we even tap into it).

What it shows is that the property of having some phenomenal character or other has a functional essence. But it does not show that individual qualia are functional in nature. Our grasp of what it is like to undergo phenomenal states is supplied to us by introspection. Absolutely not and individual qualia are not functional. It is our experience that supplies us with what it is like to undergo phenomenal states, and that experience is born of phenomenal qualia not by introspection.

But is his statement true? Is introspection, a cognitive process, needed in order to undergo a phenomenal state? We do claim in our theory that recognition occurs – but is recognition the same as

introspection? I believe not. I believe recognition is a matching – it is a feeling, a "Bing" and enlists no introspection in order to experience it. Experience does not require knowledge – the concept of experience is direct.

No matter how much objective information we come to acquire, we still seem to be left with something that we cannot explain, namely, why and how such-and-such objective, physical changes, whatever they might be, generate so-and-so subjective feeling, or any subjective feeling at all. The hard problem. But is it really a subjective feeling? Consciousness is not subjective, where subjective means it differs as to one's judgmental, cognitive processing. Consciousness is not cognitive processing but is a direct duplicating of your inner quale, which is not subjective.

I don't like the use of the concept of "subjective" when describing qualia experience. To me, subjective entails a personal mode of thinking that though it has no objective grounding, is nonetheless of a cognitive nature – cognitive processes being not a part of the experiencing of qualia – it is the part only that thinks about it, cogitates about it, but does not experience it.

This is the famous "explanatory gap" for qualia. Experiences and feelings are as much a part of the physical, natural world as life, digestion, DNA, or lightning. It is just that with the concepts we have and the concepts we are capable of forming, we are cognitively closed to a full, bridging explanation by the very structure of our minds (McGinn 1991) (that is because our minds are constructed through only the physical and we can only utilize them in a physical context – it is missing the spatial, durational (i.e.: time) and consciousness dimensions and so is limited to just the physical aspects). I like the gist of his above thought; however, I believe though that we can understand the gap and can define the bridge and even possibly manipulate the bridge. But I agree with his statement that we are incapable of forming a bridging explanation by the very structure of our minds – we process everything from a materialistic point of view in general. I consider this is because we operate only on the material plane and thus do not naturally see things from a phenomenally consciousness plane.

There is no general agreement on how the gap is generated and what it shows.

The "Gap" is a result of energy distributing itself between the physical and the phenomenal – between materiality and consciousness. That separation of energy into parts (actually three parts when you include spacetime) automatically reveals a gap from either one of the dimension's vantage points. No real gap exists though – it is just a mistaken vantage point observation (from the material perspective). The alleged gap is "filled" through the reality of interaction, cause and effect This also begs the consequential question; From the vantage point of universal consciousness, does the physical/material not exist without interaction? I believe it does. What likely bridges that consciousness/material Gap is space and time. When universal consciousness interacts with space and time it gains identity, identity of the material nature. And vice versa when materiality interacts with space and time it gains conscious identity. They all three interact to form o complete aspect of energy.

Two billiard balls may exist separately on a physical level, but when they meet through a cause-and-effect collision (interaction), they share each other's time and motion aspects, transferring and interacting with each other's time or motion quotients. In the phenomenal and the spacetime sense, there really aren't two separate balls (that is just a material vantage point definition of the "scene") – there are in a different sense of view, a different reality; a continuum of motion and time (duration)

and materiality, at different intervals, that as a whole make up the total of cause and effect of time, motion and identity (consciousness) as 100% of the individual parts viewed holistically.

Likewise, phenomenological aspects, physio-phenomenal aspects and material aspects together make up one full measure of energy, with no gap. Energy distributes, but overall (between the three states of phenomenon, physio-phenomenal and materiality) has not diminished one bit. Energy cannot be created or destroyed, and when it distributes itself, or transforms into three states, it cannot be diminished or increased, it remains 100%, space-time, materiality and consciousness. If I look purely from the vantage point of consciousness, I detect nothing else. If I look purely from a physical point of view, then I detect no phenomenological-ness. The "Gap" is simply one of a subjective viewpoint or vantage point.

In the past, philosophers have often appealed directly to introspection on behalf of the view that qualia are intrinsic, non-intentional features of experiences. Recently, a number of philosophers have claimed that introspection reveals no such qualities (Harman 1990, Dretske 1995, Tye 1995, 2000). Suppose you are facing a white wall, on which you see a bright red, round patch of paint. Suppose you are attending closely to the color and shape of the patch as well as the background. Now turn your attention from what you see out there in the world before you to your visual experience. Focus upon your awareness of the patch as opposed to the patch of which you are aware. Do you find yourself suddenly acquainted with new qualities, qualities that are intrinsic to your visual experience in the way that redness and roundness are qualities intrinsic to the patch of paint? According to some philosophers, the answer to this question is a resounding 'No'. As you look at the patch, you are aware of certain features out there in the world. When you turn your attention inwards to your experience of those features, you are aware that you are having an experience of a certain sort but you aware of the very same features; no new features of your experience are revealed. In this way, your visual experience is transparent or diaphanous. When you try to examine it, you see right through it, as it were, to the qualities you were experiencing all along in being a subject of the experience, qualities your experience is of.

This is correct in my view. It also touches closely upon a similar question; Is there an object, a quale derived from that object and then experience of that quale which would thereby be the experience exactly of the object? Or are qualia different than the object itself. It seems that some aspect of the object is duplicated in the qualia and then the experience. However, this is the constant mistaken notion of what qualia is.

It is true that an object triggers qualia (better put, it is the cause of qualia in the sense of cause and effect — which itself is just interactive transformation from the physical to the phenomenal) but the object is not inherently the same as the qualia. The qualia are something separate and different than the object and has a translation and identification (information) of the object but no qualities of the object — one is materiality only while the other is ethereal only — they are different. Just like water and ice are different.

Our experience also is removed from both the object and the inherent nature of the qualia. Our experience is just triggered by the qualia. It has all been cause and effect, all been interaction and transformation (of energy). The three aspects (object, qualia, experience) are all separate views of an underlying reality (holistic energy).

Therefore, our "bridged" (effected) interaction that is experience is just a different view of reality filtered through our Will through the application of attention — an interpretation (attention being a part of both the qualia and the Will) — attention is the interactive agent in this "transaction" (transformation) with recognition being the effect part of the cause-and-effect process — the transformation itself (attention, in that sense, is the "coldness" that turns water into ice). Each dimension (material, spacetime, consciousness) has a cause and effect upon the other dimension(s). Each effect is different in its inherent quality or reality. There is object (one reality) triggering qualia (another separate reality) triggering recognition or experience (yet another reality or interpretation). These realities, that each have their separate inherent nature, are all distributions of energy. As steam, water and ice are distributions of H2O. Yet it should not be missed that each separate reality is, in its vantage point, a duplication of the subject/object. It is different than the holistic reality, but it is in its own right a correct view of it, reflecting its form of reality, but caused by the subject/object.

But as to whether the transformation is true to its cause, as the question Tye analyzes above, the answer is that it absolutely is. No inherent change takes place in the transformation, in the interaction, just the form changes (it still comprises H2O). They might not appear the same, but they retain a one-to-one correlation that would be exactly the same if an interpreter could be enlisted and applied to it. The words "Oui" and "Yes" are inherently and phenomenally the same even though they are spelled differently and hail from a different substrate.

This point holds good even if you are hallucinating and there is no real patch of paint on the wall before you. Still, you have an experience of there being a patch of paint out there with a certain color and shape. It's just that this time your experience is a misrepresentation. Not exactly a misrepresentation but rather an application of an inner quale.

It is not simply a misrepresentation. After all – it duplicates the qualia effect (green looks green whether it's from the qualia or from a hallucination – it still has greenness). What is happening is that the same trigger that caused the qualia transformation from a material object, is interacting with our neuronal circuit/cognitive process – our inner quale (in this case a hallucination as the trigger mechanism). Since the trigger is the same, the qualia are the same and therefore the experience is the same. In the case of a hallucination, or even a self-derived thought about the patch of color, the trigger is our memory of the quale of the object. Our inner quale.

This means that we have, inwardly, the physical ability to duplicate the inherent nature of an object's trigger in our neuronal process, in our memory (Mary can't do this). This is because our cognitive process is of the physical, the material, as is that of the object. Therefore, it can be isomorphic to the object. We do not inwardly "experience" the object—that is done directly through the qualia—we do however, duplicate the neuronal firings that the object would give off naturally, only in this case it was only an inward cause or trigger that fired those neurons. We would fire off the object itself neuronally, but not experience it on that solely physical level.

The visual cortex in this case takes the place of the object and the attention matches coherently with the qualia that is associated with that process (but associated only in the sense that it mimics the nature of an object). A mirror so to speak. In effect, the conscious dimension has interacted with the same cause and effect of the physical dimension, the only difference being that the physical representation was not of a material object but of a representation of that material object. Do not mistake this though to mean that the qualia are representational – the qualia are still a separate

phenomenal entity and so is the consequent experience. In other words, even though it was inwardly triggered (as an object or inner quale), the unique external qualia were still tapped into and paramount.

These observations suggest that qualia, conceived of as the immediately 'felt' qualities of experiences of which we are cognizant when we attend to them introspectively, do not really exist. The qualities of which we are aware are not qualities of experiences at all, but rather qualities that, if they are qualities of anything, are qualities of things in the world (as in the case of perceptual experiences) or of regions of our bodies (as in the case of bodily sensations). I fully reject this view. It's not the qualia that doesn't really exist – it is experienced from its existence, it is the physical introspection that doesn't exist in awareness – it is limited to a mirror with no subject looking into it.

If I feel a pain in a leg, I need not even have a leg. My pain might be a pain in a phantom limb. Facts such as these have been taken to provide further support for the contention that some sort of representational account is appropriate for qualia. But this is refuted in the above discussion about hallucinations. The phantom leg is a memory/object leg. If a person never had a leg, then this could not happen.

What of the three-way concept (discussed above) concerning cause and effect transformations between object, qualia and experience? How does this work in the case of an emotion, depression let's say? In that case – sadness is the experience, the qualia produce the feeling of sadness, the experience of sadness or sadness-ness. But what transformation is the qualia from? Where is the object that triggered the qualia?

In the case of emotions – the qualia are triggered by a cognitive evaluation of a circumstance. That "evaluation" and that "circumstance" together form, in terms of triggered qualia, the object which causes transformation. The cognitive evaluation process is therefore the same as the cognitive process that remembered or recounted an object's material properties. This is possible simply because all facets of this interactive process are of the material. A circumstance is a physical reality, an action must be involved. Introspection of that circumstance (or action) is the evaluative part and introspection is a physically cognitive process of physical/chemical neurons. Since these two physical aspects interrelate subjectively yet physically in the brain, they are consistent with the process of calling up an object cognitively in the sense we are considering objects and qualia and experience. So, emotions are the qualia of physically constituted events processed in the brain.

Do frogs have qualia? Or fish? What about honeybees? Somewhere down the phylogenetic scale phenomenal consciousness ceases. But where? It is sometimes supposed that once we begin to reflect upon much simpler beings than ourselves — snails, for example — we are left with nothing physical or structural that we could plausibly take to help us determine whether they are phenomenally conscious (Papineau 1994). There is really no way of our knowing if spiders are subject to states with qualia, as they spin their webs, or if fish undergo any phenomenal experiences, as they swim about in the sea.

I contend however that as long as there is Will and attention, then a creature will experience qualia. So, yes, fish and snails are conscious and have experiences. Plants however, in my view, would not be – they lack the facility for attention and Will. Will is not simply action – it is action with targeted attention. Plants do not have that facility. Remember that animal brains, or even snail brains, have billions and billions of neurons.

ATTENTIONAL SYSTEMS

From Consciousness, Attention and Conscious Attention By Montemayor and Haladjisn

Forms of Attention

The authors focus on visual attention to bring out the various existent approaches to attention. Their goal is to develop a theory that shows that consciousness and attention are both separate and have evolved over time. They define attention primarily as a selection mechanism. One that enhances perception for the purpose of executing actions and higher-level cognition. I somewhat disagree with this definition in that it dismisses the concept that attention can be relatively benign and not result in an action. It doesn't address different levels of attention.

They claim that it is involved with selecting what is most salient. But that seems to me to be a subjective notion – need-based attention would come closer to this. They do state however that attention can be self-directed. A key concept in my definition of what constitutes the Will. They also argue that attention is made up of many disparate cognitive processes that together produce the ability to select. They state that attention is important for determining, in certain cases, how information is interpreted. They cite for this when a picture can be interpreted in different ways, like an Escher drawing of two faces. It's a misnomer to ascribe the interpretation to attention, attention may have a selective role, but the interpretation is purely a separate cognitive process. And keep in mind that the choosing of what is salient is the trigger for matching inner qualia, which is responsible for consciousness. Thus, there is a direct linkage between attention and consciousness (through cause and effect) and thus they are not separate in that they are parts of the whole. Think of a Venn diagram – there are separate aspects, but one combined whole.

Several distinct attentional systems have been identified as well as different "forms" of attention (preattentive, perception and conscious attention). They list the various identified (scientifically) different structures; maintaining alertness, vigilance to a task, prioritizing sensory input and higher-level cognitive functions that detect, recognize, and control awareness. I consider detection to be attention, while I ascribe a separate function for recognition, and I consider awareness a different word for consciousness. They do state that there are various levels of attention They state that attention can be effortless or controlled by a feeling or willful intention. Accentuate the use of the word "willful" – that is the role of the Will vis a vis attention.

Feature, Spatial and Object Based Attention

They then discuss varieties of attention. These are feature based, spatial attention and object-based.

Feature Attention is attention drawn to certain features in a visual scene such as receptors that detect, and then process, colors, motion and orientation. For example, in searching for a red pen, this system can prioritize the selective approach for the color red. This is what I consider to be controlled attention (Will), which combines cognitive processes with the ability to attend to something. Again, I consider

the cognitive process to be caused by a need (to find the red pen in this case) and the process of finding something red is triggered and born of recognition (of a red quale).

An observation I would make here is that the authors are now delving into the various complexities of how attention operates physically in the brain. This however does not mitigate the more over-arching nature of attention and what it is holistically in itself. So, my theory about need-based causation, and other facets I have discussed, are not trumped by getting into the complexities of the functions that bring attention to bear. I am more addressing the role, the why.and.cause of attention than I am concerned with the detailed description of the <a href="https://www.how.no.com/h

They further discuss integration theory which states that there is a pre-attentive stage which processes the object, through recognition before applying attention to it. I have a similar theory which talks about an evaluation stage before attention comes into play as well as the role of recognition. They describe this as a more primitive type of attention and one that operates automatically. I haven't considered primitive evolution, but I do maintain that this phase is automatic. One big difference between interpretive theory and mine is that they maintain that the objects are selected, one out of many, based on certain characteristics. While I posit that this phase is applied to everything brought into the visual cortex (or other sensory apparatuses). The difference is that by theorizing that it is a selection-based phase, one must ascribe attention at that "pre-attentive" state. But they maintain attention occurs after this phase, so it is contradictory and circular.

Spatial attention on the other hand can be directed to spaces between objects or to objects in "space" instead of toward features. I would note however that those spaces might simply be considered as a different type of feature. It also could encompass a theory of spotlighting visual targeting to a specific "spotlight-like" region of a visual scene. They consider this "distributed" attention.

They consider this "automatic" processing of spatial and features to be accompanied by attention, in spite of the fact that it is automatic. In my theory this would be considered either Attentive Cognition or Non-Attentive Cognition depending upon the complexity of the processing involved (the evaluation phase).

Covert attention is another interesting ability they bring up. This is when your automatic visual attention is attending to the middle of a visual scene, while you can at the same time detect things peripherally. This speaks of a secondary and separate Willful attention that can be applied while automatic types of attentions are in play. This then may indicate that there are numerous attentions being applied at one time (or it may be isolated to just Willful attentions).

They point out that studies have shown that different types of attention come from different areas (and processes) within the brain.

I find it very interesting that one might correlate the three types of attention that they theorize with the three dimensions of energy that I theorize in Part 1 of this. They consider the three; feature based, spatially based and object based. One can easily connect spatially based to spacetime, object based to materiality and feature based to consciousness or qualia. Could they have evolved under those lines? What other categories of reality might fit along those lines? This would make a very interesting investigation.

Object-based attention posits that attention is drawn to things that display object-like properties. They go on to define three properties. But the point is made irrespective of whether you agree with the categorization of the three object properties. The interesting thing about this is that it is triggered by the object's properties. If one considers an object's properties to be an external and phenomenal thing, then what is being defined here is qualia!

Studies have shown that short term memory may play a part in object attention. Though when closely interpreted it seems more likely it plays a part in recognition, which agrees with my theory and makes common sense. I call this the matching process of the object with memory.

The "Bing" of Consciousness

In one sense, these concepts reinforce that these types of attentions, and thus attention in general, are necessary for us to have Conscious Attention because before you can experience conscious representation (recognition) you must have organized objects through the use of attention. This therefore shows how attention "binds" to consciousness. It also would account for why and how a physically based process (object-based attention) can result in and interact with a phenomenally based experience (through the object's properties, or qualia, being "picked-up" by attentive cognitive processes and recognition). In a way, that is a revolutionary discovery of the mind-body, hard problem connection! But keep in mind – it is the final phase of recognition and its attendant "Bing" that ultimately equates to a conscious and phenomenal experience, brought on by this process of attention.

And this recognition/memory "Bing" approaches the crux of this entire subject of the hard problem and how a physical set of processes could give rise to a phenomenal experience. We are very close here to a full explanation of the hard problem of Chalmer's. That explanation lies in the matching of object to memory (an external quale to an internal quale). We said above that the recognition, or matching, of the object properties (qualia) to memory (inner qualia) creates the Bing that we feel as conscious experience. But what is it in this combination, in this matching, that transcends the physical/phenomenal duality issue?

This is where a revolutionary idea comes into play. I maintain that our memories are themselves; qualia – each one a quale. Keep in mind that even though the recording of a memory is through a physical process, the specific memory itself is actually phenomenal and not physical. There may be a physical substrate, but our conception of the exact, specific memory (let's say a red ball) is an inner phenomenal one (just as our perception of external green is a phenomenal perception). We conceive the quality, or phenomenal concept and appearance of a red ball when combined with the Will and its bridging capabilities.

This is somewhat like Plato thought in that Plato conceived that there were ultimately true forms that we approximate. That approximation being a phenomenal process or effect. I say something similar; I say the recognition memory is a derived phenomenal effect of an inner quale at its base – not a physical cognitive one. The trigger is physical – a certain configuration of neural paths, but the final appearance of the specific memory, the memory's derived object, is ephemeral. And here's the unique and explanatory idea; that phenomenal object of our memory is itself a <u>quale</u> – an internal, object/property-based quale. Being a quale, we can experience it through the same process we have described when experiencing an external quale. When we experience inner qualia, the feeling that it is an experience is a quale in and of itself – it is an experience feeling, a Bing.

If you think about this it becomes amazing in that we first connect (cohere) to an external object's properties (qualia) through our Controlled Attention (Will and the Bridge), this picked up property (the quale) is then matched (recognition) to our inner quale memory which contains another mirrored quale. This now triggered quale-like memory triggers a response from an experience quale (Bing) that is triggered when a memory quale is reinforced – in this case by the external quale recognition (or matching).

So, it is quale reinforcing another quale, a repetition of sorts, that causes the Bing of experience to occur. Consciousness in this way, as well as the crossing of the physical substrate to the phenomenal effect, is a function of repetition of qualia and reinforcement of quale-like memory – in effect; A Loop!!

I think somewhere, deep down, as a gut conception of consciousness, many of us have suspected some sort of loop going on within our brains that accounts for self-consciousness; an object that resembles an object and so is projected as an object, that is recognized as an object, which is projected, etc., etc., mirrors within mirrors. I will rest my theory of consciousness on this nail and proceed with the author's discussion.

'* Also, see Author's Postscript on page 57 for a better detailed analysis of the full process.

Attention and Control

They now discuss attention and control. They discriminate that there are two types; a bottom-up process and a top-down one. Bottom-up are neural processes that are stimulus driven, automatic and not susceptible to willful control. In our theory this encompasses either unconscious attention, attentive cognition (like complex math) or un-attentive cognition (like simple math).

On the other hand, some forms of attention can be controlled. They consider these as goal oriented. They would originate from higher cortical areas (higher cognition). I maintain that this is triggered by a need-based construct or object. They refer to this as Active Attention. I would call it Conscious or Controlled Attention or The Will.

The bottom-up theories are constrained by the selectivity that is necessary for automatic processing — or so they claim. A search for an object on a cluttered desk has many objects "competing" for attention. How then does selection work? One theory is filter theory wherein a complicated series of selective processes occur in pathways and in short term memory, thus winnowing down the number of selections to apply attention to. This would correspond to the evaluative phase that I theorized, though how it works I did not venture to determine. Though, were I to hazard a theory it would be that we put into short term memory, from long term, a model of what we're looking for. We would then compare what we see to this "model" and when they match, through a recognition process, it would be transferred to attention control. This could be how, or not. My guess is that in the evaluative phase the brain is searching for a match of the object to the targeted construct from memory.

In a "more is seen than can be stored in memory" theory; Subjects could identify specific aspects of an entire scene of objects but could not identify more than one set. This indicated that the entire scene was "available" in short term memory, but we lack the quantity capacity to attend to too much of it.

These selection theories all apply to base processing of visual information that is not in our consciousness, or even possibly in our unconsciousness. It is the initial processing of brute information and as such would be involved in feature attention and spatial attention before moving "up" to object attention, where properties and more detailed attention is presumably brought to bear. But do not lose sight of the concept that all or any of these attention types (feature, spatial or object driven) will still have as the base trigger mechanism - a need, an evolutionarily learned need. So, whatever mechanical systems are discovered as to the how of initial processing of information or objects, the why will remain as the evolved priority of a need that is part of the prioritizing hierarchical construct of any selectivity matrix processing.

The bottom-up processing is a precursor to top-down processing. This is thought to include willful attention and has the ability to direct attention onto objects (those objects having been pre-filtered (bottom-up) beforehand. This "beforehand processing" is the evaluation phase in my theory. They previously, in the bottom-up construct that they propounded, called it goal oriented attention. I could see this being a goal set-up in short term memory to gauge against, or more likely a need.

One theory of top-down processing involves identifying a visual object among many similar, attention-competing, objects. One approach is the Guided search theory which is a parallel processing theory of how guiding a search is carried out. How that is done they do not say. Another theory is the selective tuning model that places certain object properties upon the neural pathways that are evaluating the input data. Again, the salient point here, for our purposes, is to understand that there is an evaluative, pre-attention phase that will determine what type of attention to apply and thus what objects to select. I do not disagree with top-down and bottom-up theories, I just consider them to be involved with the how while I am concerned with the why.

Central executive system theory has bearing on my theory of inner memory qualia and a loop. It posits that memory may support self-reflection and help distinguish the source of phenomenal experience, be it from sensory inputs or from long term memory. It describes ways that perceptual information is maintained for cognition and that maintenance may be necessary for conscious awareness of information. This is very close to what I proposed above as the loop and certainly includes parts of that theory!

Unfortunately, the authors readily admit that they are not paying full attention to how memory relates to attention and consciousness, and so they move on from this very important subject. They do, however, cite some authors (page 51 of the book).

They now discuss effortful versus effortless attention. It pretty much matches top-down and bottom-up, with effortless correlating to bottom-up and effortful correlating to top-down. However, they interestingly point to effortful attention as producing the subjective feeling of expending effort – a very quale processing like statement.

An interesting concept that comes out of this effort-based attention subject is that the condition of "expertise" can and will affect the type and amount of attention applied to an object or construct. Obviously, if you are expert at the guitar, a different set of attention types will come to bear than someone who is a novice. Therefore, this points to attention being contextual. I see no surprise or conflicts here because an inner construct's (or object's) properties are a function of the configuration of that object, or construct, within the cognitive structure, and is therefore contextual. Playing the

note C by an expert is a different inner construct than playing one by a novice – they are as different as water and oil.

Evolutionary Attention

Cognitive features of motor control entail attention to the environment. Which backs-up my appraisal that attention is based on need. The main gist of this section is that it seems that evolution followed the feature-spatial-object attention sequence and certainly seems to have followed a bottom-up earlier evolution than top-down. These results are based on extensive research on where in the brain these attention types occur and when those areas evolved. This therefore encompasses a huge amount of research and time involved with discerning all that information. I'll note, for what it's worth, that the brain is a very complex and a very <u>adaptive</u> organ and where something was located evolutionarily originally may have migrated to a different, newer location as that newer location developed. Therefore, the study of where and when certain areas of the brain evolved may or may not define a processes evolution.

An interesting comment is made in this section that greatly reinforces my "Loop" theory. "Recent studies suggest that feedback and recurrent processes are especially important for understanding top-down attention and may even describe how conscious attention arises". These recurrent processes would be, in my theory, settled representations in memory and their attendant properties (i.e.; inner qualia) as well as pathways that process recognition of external qualia (or recognition of internal qualia triggered by cognitive causes). These pathways and inner quale memory objects would be recursive and therefore would account for the recent studies on feedback and recurring processes and their relation to conscious attention.

An interesting study has shown that neural activity produces oscillations (brain waves). It is unknown how these oscillations might be involved and to what extent, in consciousness and information processing, however, they could provide a springboard to a quantum basis to consciousness and information which I talk about in my thoughts on probability waves and free Will choices previously.

There is also a chemical aspect to the various areas and processes involved with attention – an area that bears additional study. Such chemicals as serotonin and dopamine can affect attention and conscious awareness. It may affect it but it wouldn't redefine it.

Attention deficit is another area for study. I believe that depending upon what the research ends up showing, there is either an on/off level of attention, or there is a continuum wherein a certain type of attention may have stronger or weaker aspects to it depending upon the person, their chemical makeup, brain waves, etc.

The study of evolutionary systems and areas of the brain involved with attention has produced fairly incontrovertible proof that there are separate areas for different types of attention. A continuation of this line of research may very well find actual neural configurations and processes that account for consciousness (akin to what we have posited about a loop). However, even with that type of physical identification of brain processes – the final arbiter of consciousness will remain a phenomenal experience – just one that has the support of our physical make-up – but support only. One will never be able to touch, hear or see consciousness physically – just experience it.

Unconscious and Conscious Attention

The authors address this subject directly (a subject that I too have identified as two of the types of attention). They point out an interesting concept. That is that there may very well be a continuum of conscious attention to unconscious attention, with not necessarily an on or off delineator. So, I may be consciously attentive of background music to varying degrees ranging from not at all (unconscious) to mildly consciously attentive to strongly consciously attentive to it. If that is the case, then conscious versus unconscious attention would have to have the same process construct with varying outputs that depend on levels. In addition, it is conceivable that in a conscious experience there may be underlying unconscious processing of and about data going on.

They associate unconscious attention with effortless attention as the same. And they point out that expertise may very well consist of unconscious attention to the task that they are expert in. Unconscious attention can and does still result in action and thus the effecting of behavior including decision making. This is brought out nicely, and strangely, by the occurrence of a musician playing the chords or notes before actually conceiving of them consciously. This would be explained by unconscious attention applied to an expertise.

So, failures in attention (having the wrong information at hand as an effect) show that consciousness is separate from attention, in that one may not correlate with the other. So, attention may miss some aspect of an object, but consciousness picks it up, or vice versa where consciousness misses an aspect of an object that attention did attend to. The point is that conscious or unconscious attention is a tricky concept simply because consciousness and attention are separate processes/constructs. Using the language delineations is useful, but also misleads to a certain extent. Nevertheless, there is a disassociation between unconscious attention and conscious attention, however, I do not see that consciousness and attention are fully separated processes — I believe they are quite integrated with each other.

There are many studies that have shown, through the testing of subjects, that a subject can be unaware of an object yet act upon the information, and vice versa. This goes to the inter-relatedness of conscious, unconscious and various types of attention. Which combination acts in which way remains unknown, however, the evidence points to the fact that there are inter-relations going on. So, even though attention is different and more importantly is separate from consciousness, there nonetheless is an intimate relationship between the two.

This is important because it points to the likelihood that part of consciousness comes from how something was processed. This in turn then points to a range of reactive effects from an inner quale – that an inner quale is not absolute in its effects and can vary in quality and thus perception. This can be very important because it can mean that one quale, one property of an object, can be the reality of many different variances of that property or quale.

Thus, a certain type of quale (color let's say) can have a range of perceptual results. This makes sense and accounts for why "green" may have a range or continuum of shades, brightness, etc., all from one common inner quale of greenness. In that case universal consciousness, or all qualia as one combined everything, becomes a more understandable possibility. But this is getting us far afield from the current subject at hand.

They seem to point to a relationship, between consciousness and attention, that consciousness of the exact object property is dependent upon the attention devoted to it. That seems obvious, but when you reflect upon the various processes that resulted in a specific attended object (the evaluation and filtering that goes on) attention becomes an active player in what is consciously experienced. In a way it becomes the chooser of experience – at times controlled but at other times uncontrolled.

Since I maintain that it is only controlled attention (or Will) that can result in consciousness, then there must be a reconciliation with the vital role of attention when it is uncontrolled. This doesn't necessarily pose a huge problem in that; uncontrolled attention does not choose what is ultimately made conscious, it only acts upon objects or constructs due to an evaluation process that will become either controlled attention or unconscious attention. In other words, an object is evaluated automatically in our cognitive process of evaluation, and it is after this that attention becomes controlled or remains as uncontrolled, with any uncontrolled attention not becoming a part of consciousness. The "choice" is made in the evaluation program and is based upon a need.

It is also interesting to note that attention is more prevalent than consciousness as regards the number of objects it targets compared to consciousness's number of qualia it coheres with. It is many to a few. This is due to the many more objects that do not present a need either in the evaluation process or down the road in the recognition process or, as I said above, that one quale might produce various qualities when we process it.

This speaks of a function of filtering that occurs also in the recognition process when matching occurs. It is possible that either there is a level of the reinforcement of memory that triggers conscious reaction, or there is a program in the matching phase that determines need. I believe it is more the first case though because there are many objects and constructs that I willfully become conscious of that clearly pose no obvious threat or need (though one can reduce anything to some kind of need, even the most benign thing). I can call up the color green and be conscious of it, but there clearly was no obvious need or threat inherent in that trigger (except maybe the desire to call it up). Another possibility is that once evaluation has determined a need related parameter, consciousness is assured. In the green example above, in evaluating the desire to call up green in my psyche, the desire itself constituted a need, irrespective of whether it could pose a threat. I would more readily lean toward that explanation.

So, the greater prevalence of attention of some type, more than the prevalence of consciousness, is because there are far more benign objects that come out of the evaluation process and therefore do not become conscious attention. I might see the color of something unimportant in my visual cortex when looking at a scene, but the evaluation process finds that it is not part of anything related to direct sight, direct sight always demanding monitoring and thus needing conscious attention.

The unimportant color, because it was peripheral to my sight, was not moving, etc., did not constitute something to be monitored and thus goes unheeded with no further attention being paid to it.

Alternately, it might be peripheral, but something about it might be concerning, like it was moving (moving objects always represent a potential threat evolutionarily). In that case, although it doesn't become conscious, because the evaluation didn't consider it a present need, it might nonetheless remain in an attentive state but unconsciously attentive.

So, there are three types of attention that can come out of an evaluative process: conscious attention, unconscious attention and non-attention. Unconscious attention, because there remains an attentiveness to it, would presumably be processed repeatedly in the evaluation process until it is either changed to conscious attention or to non-attention.

This would mean that there may be residual objects in our cognitive processing from unconscious attention-oriented objects that still require evaluation. This seems unlikely in that one would think it would overwhelm our circuits, and, we would constantly be becoming conscious of things that have already passed!

Therefore, I would not subscribe to "repeated evaluations" and would believe instead that once an object becomes unconsciously attentive it tends to fade away. Or even more the case, that possibly there is no such thing as unconscious attention – there is a conscious attention that comes from evaluation or non-attention only.

This doesn't change the fact that an object that doesn't become conscious attention will cause action, nonetheless. It just moves the control of the action, or cause of the action, from what was considered unconscious attention to the evaluative process. This also makes more sense when you look at duration and consciousness. Things we are conscious of last more than an instant, and behavioral reactions to conscious objects or constructs may take a range of time to trigger an action. Then, unconscious attention, one would presume, would also have a time range or delay. But action that is caused by what we have called unconscious attention seems as though it happens instantly. This then speaks more for a reflexive effect which fits in better with an evaluative process. The object has no phenomenal need and therefore doesn't trigger consciousness but has a physical need and is triggered right away – an on or off switch. A fly lands on me – I move my arm away – but I'm unaware of what I just did. It wasn't an unconscious attention to the fly, but rather a reflexive action born out of my evaluation process (which by the way, obviously, is not conscious). How the evaluative process works is discussed later.

Alternately, in another situation, I may be conscious of the fly. This is a function of context. In one situation I may be concentrating intensely on some tasks and the fly landing is either unconscious or absent. But in another situation, I'm very aware of a fly landing on me, in which case it is conscious. There seems to be either an inhibiting mechanism or a saturation point of attention. I subscribe to the theory that there are levels of attention, and at a certain high level, other objects filter out. I believe this would be a continuum of levels or filtering.

Object Attention

This subject brings me to another key question. Up until now I have been considering attention as related to objects. But it is entirely more likely that attention is concentrated on more holistic scenes of objects as opposed to one by one. I can focus in on one object intensely, or I can survey a wider scene. I believe that there is one mode of attention present and not multiple attentions per each object present.

So, if I am looking, loosely, at the center of a scene and I see four or five objects in that scene – this is one attention on all four or five. In another scene I may be even looser and am aware, fuzzily, of the entire scene. In that case I am attentive to a whole scene as a single object, not many objects of 125

themselves each. I believe that we can exchange detailed focus for quantity. It further seems that this trade-off is hard wired in our processing ability (possibly enhance-able at certain times for specific reasons, like Willful attention). These facts need to be incorporated into any detailed analysis of the various types of attention.

It also demands investigating what process is responsible for controlling how attentive one is and toward what. We have already contended that "the what" is a need, however, there still is a lot of play as to how much of a scene constitutes a need. Was it the apple in the middle of the scene, or was it the entire fruit basket? It seems pretty obvious that there is a subjective functioning that enters "the what" we will attend to. Is this part of the evaluation function, or is it pre-evaluative and less automatic? I tend to reject that the "outer unattended" parts of a scene are unconsciously attended to. I think rather that there is always just one attention at play at a time. It is possible however, and if that is so, then the question exists as to how much mix is possible between the two, or are they separate and fully process each one – and if that's so then how is the decision made as to what parts will be conscious and what parts unconscious?

The authors summarize this topic by stating that attention seems necessary to process information that will reach consciousness but is not necessarily sufficient for consciousness. I agree with this and point to an evaluation process that either does or doesn't move information to attention and then into consciousness and I am unsure whether that information which is not moved into consciousness is unconscious information or nothing further. This might though just be semantics.

The authors state that attention focus does not account for all of consciousness and that consciousness includes entire aspects of scenes, states of emotion, background inputs, etc. In a word, everything that is happening and perceivable. I do not subscribe to this. I rather believe that consciousness arises one by one and is not conscious of more than one thing at a time (just as I believe about attention). You very well may be conscious of your typing and the background music – but I believe you are not conscious of both exactly at the same time, but rather that we can switch, at light speed (or neuron speed) between the two consecutively and thus gain an illusion of confluence.

Conscious Attention

There are many theories that attempt to parse information processing and consciousness with most combining the two and calling it conscious attention. A good example to bring this debate out is that of a racing car. The theory is that we need the combined consciousness of the sound of a racing car and the visual look of a car racing by in order to have the conscious experience of a racing car. This then consolidates the separate auditory and visual experiences into one combined cognitive based conscious experience of a racing car.

I believe that the only consciousness is the separate auditory and the separate visual inputs – two separate conscious experiences. I believe we cognitively put these two together, refer to our memory, and come out with the judgement that it was a racing car. The experience was not of a racing car, at least not in the direct sense. Our consideration that the experience was of a racing car is a separate third experience that was triggered by the construct of combining the two cognitively. So that, there were three conscious experiences. The cognitive part extending itself into consciousness through the same process as the first two experiences – just, again, at neuron speed so that we don't perceive the separateness.

An example from mathematics might help clarify this issue. If I see two plus two, I automatically will have the conscious thought of four. If I then see three plus three, I will have a separate conscious thought of six. These are brute experiences that come about due to the matching recognition to my mathematical memory. If I then see four times 2 plus three times two, I will likely combine my mathematical knowledge and solve this equation as fourteen. Rightly, I would consider the fourteen solution as a conscious experience of the equation, but in reality, there were three conscious experiences that made up this stream of consciousness. We tend to ascribe our streams of consciousness as one conscious experience, but in reality, they are many conscious familiarities or recognitions combined into one, just like a stream is made up of individual water molecules in reality – but we just call it holistically; a stream – and in fact then experience "stream-ness".

An argument against this is that we are not conscious of the two plus two, or the three plus three, and only become conscious of the more complex fourteen equation and solution (Attentive Cognition as opposed to simple Unconscious Attention). The four and the six therefore being unconscious or subconscious (same thing). This is a reasonable explanation, however, since it still took the matching process of recognition, and if one subscribes to the notion that this is where the transitions to consciousness takes place, then the argument becomes weaker (but still possible). In other words – not all recognitions would result in consciousness.

For that to be the case there would have to be a level, in our matching/memory/neuronal program that is required before the feeling of consciousness arises. This then would entail a very relational construct and not have any absoluteness to it. It almost requires that the neuronal program has a subjective judgement of what recognitions would attain to that level. This would not only differ from person to person, but from circumstance to circumstance. That doesn't mean such a program does not exist, it only makes it a bit more unlikely and maybe too non-universal. The question becomes; if qualia is there, and Willful attention is there, and recognition is present – then is that enough to always equate into consciousness or are there other processes that must take place? This then begs the question of whether recognition is an on/off process, or whether it has shades of grey.

Often, I see in many of the theories about consciousness, an ascribing of action as the measure of whether consciousness takes place, i.e.; consciousness causes behavioral action. I think that this is totally mistaking consciousness (a phenomenal occurrence) with cognitive processes (a physical occurrence). Consciousness is a qualitative experience of its own, and though it can trigger a cognitive effect and then action, on its own it does not cause action (unless you call cognition an action which I am not here). Action comes out of a decision process cognitively as related to consciousness and can result in non-action. The point is that consciousness is pure experience while action is a judgement call from cognition.

As regards the author's inquiry into whether attention is needed for consciousness, I would answer that it is not necessary to have attention before consciousness, it is only necessary to have it go hand in hand. That is why I call it "The Bridge". They both occur concurrently and are causes and effects of one another. The moment you are conscious, you are attending to it. However, not all attention results in consciousness, as discussed before. So, one can say that conscious attention always goes along with consciousness and vice versa. Either one can precede the other, though qualia tend to "force" its way into conscious perception (but attentiveness will exist when it does so). It is important to note though that Willfulness always results in consciousness and experience.

Philosophical Theories of Consciousness

They define two types of consciousnesses: phenomenal and access. Access is involved with monitoring, selecting and retrieving information. In addition; control and other cognitive tasks. These functions are also involved in attention. Global access is therefore a part of this and means the information is available for decisions and action. Working memory also plays an important role. A view I reject in that I consider these functions to be effects and brought on by cognitive processes only. Take monitoring for example; there is no consciousness about what you monitor, there is only cognition and it is brought on by a need. This is the same for the other four aspects they mention above.

Phenomenal consciousness, on the other hand, is defined as the qualitative character of an experience (and often times considered not reducible to functional inputs or outputs). A definition I wholeheartedly agree with - qualia. It is not access to information – it is "what it is like" to have an experience. For instance, redness cannot be reduced to color spectra or neuronal activity. Various researchers are in various camps, with phenomenal researchers mainly being philosophers as opposed to physically based scientists.

Some consider access consciousness more synonymous with attention. The two types are independent of each other. My theory that recognition is where the phenomenal meets the physical allows one to see the gamut of consciousness as straddling both concepts (with phenomenalism the crux of it, but access as being intimately involved – as a conscious effect from evaluative and recognition phases where appropriate).

One view of access consciousness is that it is purely attention and therefore there is no such thing as conscious attention. Some view language as the key to this, which would mean animals do not possess consciousness. Access seems to fit in better with an evolutionary approach. This is understandable since phenomenal consciousness, it would seem, should be all or nothing (not gradually evolutionary) and applicable without language. However, if you subscribe to my theory that consciousness doesn't "kick in" until recognition occurs (and recognition has a subset of cognitive processes) then, due to recognition, phenomenal consciousness would have evolved as recognition evolved physically. I completely reject, as I have covered before, that animals do not have consciousness.

One viewpoint that attempts to reconcile the two is that access consciousness involves a representation and that the experientially phenomenal relationship is from that specific representation. This is not far removed from the process of matching within the recognition process that I talk about, wherein memory (akin to representation in that reconciling theory) is actually inner qualia and thus a neuronal construct and is what phenomenal consciousness is experiencing. A representation by itself is just a cognitive process, it is recognition that gives this cognitive process the ability to transfer to consciousness. However, in my theory of recognition, the memory itself is phenomenal (an inner quale), with its physical-ness only another external object (the neuronal part of memory), not too different than a material object in the external world accounting for the phenomenally based inner qualia associated with it.

A strictly phenomenal only view would deny that any cognitive process (also sometimes called representationalism) is involved and that consciousness is wholly non-physical. I believe however, that the recognition program connects the two at certain times, while at other times we directly experience the phenomenal without recognition, as when our Willful directiveness has eliminated all cognitive processes (as in deep meditation) or in the case of Awe. When cognitive processes are eliminated, which actually filter and limit direct phenomenal external qualia, recognition is skipped and the phenomenal qualia is directly duplicated in consciousness without any need for a transferring mediation.

One concept that illuminates this debate is that of inverted qualia, where two subjects experience different colors than the source accounts for. What is always mistaken when evaluating this occurrence (which is real in synesthesia subjects) is that it is usually considered proof that the phenomenal aspect must depend upon the representational construct, as that representation must be different in each subject and thus the experience is not a phenomenal one but rather a representational, and thus cognitive one. I believe that the cognitive representation accounts for this, however, each representation has a separate "output" for the cognition as well as a separate quale. In synesthesia, the quale from color sensory input might, in one case, effect the auditory process and the quale associated therein. So red might elicit the note of C, etc.

But what is missed here is that whatever the quality appears as, whether that be a different color quality or a sound or what have you – the experience is still of a quality only and is thus still a phenomenal one. Even if this was due to a representative difference – the quality obtained from that representation is still phenomenal. All experience is certainly dependent upon the characteristics or properties of the physical objects, but the cognition from that object – that effect is what matters, not the inherent object itself.

This means that a red rock can indeed result in the quality of green to someone who cognates and coheres that quality of green to that emanation. It is the cognitive coherence that determines the specific quality, with most coherences matching among most subjects, but in an inverted case, the coherence would be different – the cognition for green would be what coheres to the otherwise red rock and whatever function accounted for green being cohered, would not change the fact that it still is a phenomenal quality perceived.

Self Consciousness

Is self-awareness and consciousness the same? No, they are not in my system. I believe that the experience of self is a cognitive process that has tapped into consciousness (or at times vice versa). That is; one is experiencing consciousness and in the recognition program, the logical output of the matching has caused the cognitive thought of self, and that becomes associated with the original, and continued, experience of consciousness (the feeling of what that conscious input is, including the output of overall consciousness).

So, one experiences the conscious quality and feeling and one's recognition reaction is associated with the cognitive concept of self (which might nonetheless have a conscious feeling of self, but not always). To go one step further; the concept of self was built into memory originally with the association of a conscious feeling (possibly what I call "the hum" of consciousness). So, automatically, from memory's quale-like working, when the self is thought of – the feeling of that "self" quale

manifests consciously, and the two are identified as one and the same – but they are not. In other words, there is a conscious manifestation to the cognitive thought of self. Selfhood becomes a phenomenal experience.

This doesn't mean there is no such thing as the self, the self is still there, it just doesn't organically have consciousness as its inherent make-up, it takes consciousness to accrue that construct to it. In addition to the point that the concept of self has been built into memory, is also the unique experience that each time we recognize the concept of self phenomenally, we are in addition "remembering" that this phenomenal quality of selfhood has been the same since as far back as we can remember.

Therefore, there is also an element of familiarity and constancy that we can only associate with who we have always been. If every time we thought about our self, we felt a phenomenally different quale or feeling then I submit we would be somewhat schizophrenic or at least ungrounded in our concept of the self. This might very well have important consequences on how we process things and many mental problems.

A question then arises; When we inwardly speak to ourselves, as in reading, are we conscious and/or are we conscious of ourselves. One point to bring out is that our familiarity with our own voice is part of our self-make-up cognitively. Another point is that each sentence seems to have a finishing Bing. But there also is a certain cognitive automatic reaction to reading. What about speaking to ourselves when we think – how does that fit in? Syntax seems to be automatic, but it is in context of what's being spoken. Also, we seem to have the ability to know what we are going to speak a micro-second before speaking it – indicating an unconscious process going on in conjunction, or maybe wholly, with the act itself. What about animals – how do they process thinking (pictorially?) and do we also have their way of doing it as part of the process?

Our experience of self-ness also contributes to our ability to have empathy (though it doesn't guarantee it). When we cognitively determine someone else's situation, whether that be their emotions or their physical, social or survival-oriented affairs, we process that information through the same recognition program that those components of the person's state would be processed if they were <u>our</u> state of affairs, and thus we have the empathetic, sympathetic reaction to those components.

This would be an interesting subject to explore in the case of deteriorated or absent empathy as well as levels of empathy. For example, if we do not like ourselves, for whatever psychological reason, does what would be empathy in a normal person become dislike in that person? Similarly, if we do not have the Bing capacity of our own emotions, again for whatever psychological reason, do we tend to be sociopaths or psychopaths.

An interesting argument that the authors bring up is in the case of Mary, who has every single scientific and other bit of information about color but has never seen one. When she is finally exposed to red, does she gain anything new from it? Specifically, the authors contend is that she cannot make a connection between a phenomenally based information and her previous scientific information because there is no correlation that she has to link the two. I reject this argument because there will be many matches cognitively in the recognition program between the various aspects that she experiences when seeing red and the descriptive information she has, at least enough to make the connection. Once a connection is made in the program, it will be added to the memory construct of

color. In fact, until she is exposed to a different color, she would probably consider the quality of redness to represent and relate to all colors.

Another argument is that she gains no new information because she already knows everything about color. I find this absurd. The actual quality of something is wholly different and separate from any description of that quality and cannot relate the experience cognitively because there has been no experience to remember. Without exposure to qualities (or for that matter information) there can be no complete knowledge of it.

This goes back to the old question of describing an orange to an Eskimo. You might thoroughly describe it, but the Eskimo has no experience of it and thus can only intellectually understand it. I'm reminded of the story of the man who in jail reads travel books and feels he has experienced the travelling to exotic places. The fact is that he has experienced something, but that something is contrived and invented within his cognitive processes and abilities. They might even connect it to other things it is like that he has experienced. Nevertheless, when he actually experiences it physically and phenomenally – it will be a wholly different experience. He will have gained new information and he will in fact have to cognitively reconcile the two which would prove challenging.

<u>Dreaming</u>

The authors also in this section of the book contend that in dreams we are fully able to experience the phenomenality of our non-real perceptions. I maintain however that what we experience is not attributable to a phenomenality. I maintain that without Will, without attention (which I contend does not exist in a dream) that we cannot experience the way we do when we're awake. I believe our apparent phenomenal dream experience is as much a hallucinatory-like occurrence as the dream-state perception itself is.

So, we react as if we have experienced a phenomenality but in reality, we have only "dreamed" that as part of the hallucinatory scene. Witness getting chased by a gorilla in a dream. We experience fear (a nightmare) but we do so purely through our recognition, cognitive processing (which continues to be active in a dream sequence). Since the physical reactions are the same as if it really happened (heart racing, stupefied emotion, fear itself (which is emotional) it seems to be phenomenally and consciously experienced. However, without the actual object or cognitive experience occurring, there would be no conscious experience.

I'm not completely convinced though about this argument. I think that there have been no external qualia triggering a recognition and thus a conscious experience (call this the outside-in experience), but there has been an internal one (inside-out). I believe an internal construct takes the place of an external object or construct and then sends the qualities through the recognition program. However, I still contend that attention, and more so Willful attention, must play a role for this to occur. Without Willfulness (controlled attention, in other words conscious attention) then the dream sequence is impotent. I believe this is the bulk of our dreaming that we are not aware of. It is only when we become semi-conscious (i.e., near wakefulness) that we utilize attention and Will upon the scene. Otherwise, the lack of attention and Will renders our deep sleep dreams not even recognizable – they would remain wholly unconscious. Indeed, we even refer to our waking dreams as "semi-consciousness" (as opposed to our non-waking, deep sleep dreams which we do not remember.

I also believe that the amount of information retrieved from a dream upon wakefulness, as well as the level of phenomenal quality from the information, is a function of how awake we were when the dream occurred. The more awake we were, the more "conscious" we were, then the more of the dream sequence we can remember as well as the more we can recall a phenomenally triggered manifestation of the sequence. These parameters and continuums owe themselves fully to attention – the amount we were able to pay attention to the dream. As we wake more, we can attend more, and so on.

One of my theories about dreaming is that dreams occur in a duration of time that has no basis in the reality being portrayed in the dream or in what it would had those scenes happened in our wakeful state. In other words, one can actually have a dream sequence(s) that, if it were happening in our awake reality, i.e.; really happening, it would take quite a while, while the sequence in the dream might take only seconds.

I believe this is because attention to events also determine the duration of the event and that this is accomplished because the actual duration is encoded into the recognition process and then passed on to conscious attention (we recognize the construct as well in its <u>temporal characteristics</u>). In effect, attention retains the reality of the duration.

But in a dream, where attention does not exist, no durational construct is attached to the dream sequence, even though dream events unfurl in a consecutive order (this accounts for the "rapid" in rapid eye movements I believe). This may also possibly affect the brain's ability to store dream sequences into memory. Upon wakefulness, I believe the durationally correct timing is assumed and bonded onto the now emergent dream memory – even if when it was dreamed it was so in a few seconds.

If one has ever been suddenly awakened by a phone or a noise, they instantly will retrieve an entire dream sequence at once. This sequence was sitting in short term memory for a moment as a whole sequence, and the person can suddenly retrieve all of it at once, even though it might have occurred in the dream some moments before that. This points to the probability that conscious attention carries with it certain memory related and time and space related abilities.

This same dynamic happens to artists, musicians and athletes when they lose any sense of time during a routine or compositionally intense activity. One would think that they are "lost in attention", however, it is just the opposite, they have suspended attention. This tracks with what they will report about the experience in that they tend to say that they were performing without thinking or outside themselves or automatically, that they lose themselves. That there was no time element or very little. In these situations, the stimuli of thinking have become absent, automatic instinctual expertise has taken over which does not process anything through recognition, but operates without any evaluation or monitoring (much like awe), and thus no attention is formed. It is using Cognitive Attention. It is in effect a dream like state and has an unreal manifestation of time and even space. Daydreaming (notice it's called day-dreaming) also has this dynamic, as would hallucinations.

I also believe that when revelations occur in dreams, or problems solved, etc., it is because the normally required reinforcement of mnemonic pathways for conscious attention to exist, is avoided, gone around, and this then allows new thoughts to come into play, which ordinarily are constrained by those relatively rigid and limiting pathways. Memory in that sense can be constraining – constrained

by experience – while revelation is not of experience by definition. It is new and unfounded and utterly unique.

Dreams, and their lack of attentional specificity, allow sequences and objects to have much less captured detail. What a person's looks at in wakeful attention has many details, but in a dream possibly only one minor detail may suffice for an entire scene or sequence to manifest. Here again, reality has many constraints that dreams do not have.

The system that causes phenomenal experience should thus be greatly affected by the reduced amount of attention upon first waking up from a dream, yet it is not. Since it is recognition that accounts for the jump from the cognitive to the phenomenal experience, and recognition does continue to exist in a dream, it just does not produce full attention until fully awake (by the way; it is possible that the determination of awake is dependent upon attention being present). Presumably, the reinforcement of memory is at too low of a level to spark full attention (possibly due to the lack of full object or construct detail) but is enough to trigger recognition and a full phenomenal reaction/experience. This would point to there not being a one-to-one correlation between the level phenomenally triggered and the level of attention that caused it. Phenomenality may well be an on/off phenomenon. It is not uncommon for one to wake up "sad" but hardly know what caused it other than remembering the general gist of a dream.

It is also a possibility that as one falls asleep their attention processes and capabilities shut off and thus only allow dreams without attention to occur and not be remembered or experienced. This speaks of a cognitive area for attention to happen that can be shut off upon falling asleep (which tracks with what scientists say).

Conscious Attention

In this next section the authors further discuss what they term conscious attention. They define this as the overlap of consciousness and attention. I consider conscious attention as controlled attention and the basis of the Will. Since I also further define the Will as the function that is responsible for allowing a bridge to exist between the phenomenal and the physical, this fits well with the author's definition of an overlap with the conscious (phenomenal) and attention (cognitive or physical).

One of the characteristics of conscious attention is that there is access to cognitive functions such as thought, report, action and memory. One difference with the author's view of the role and functionality of conscious attention is that I believe that it is an outgrowth or effect of a recognition program, while the authors would consider it on its own without a specific cause. I maintain that the true overlap occurs when the quale in memory is triggered, through recognition, to cause an effect of consciousness through further controlled attention (the Will). In that sense it provides a description of the actual functionality of the overlap, which I concisely label, "The Loop".

A good example of conscious attention might be the interpretation of an Escher drawing where the drawing fools your perception. The information is gleaned through an attention process, while the experience begotten is one of consciousness of the object interpreted. The authors would consider this an overlap. I see this as not necessarily so. The attention segment and the consciousness segment may be wholly separate functions/processes. There may be a separated cause (attention to one aspect of the drawing) and effect (consciousness of a different aspect of the drawing).

Where I see the overlap happening is precisely as part of the manifestation of consciousness that occurs in the recognition phase. I see the order of things here as; attention (physical) causing memory reinforcement (physical) causing consciousness (phenomenal). It is the triggering of the memory qualia that constitutes the transition from physical to phenomenal, otherwise called here, an overlap. Again, the difference between my concept and theirs is that they consider conscious attention to be required in certain processes, while I consider it to be an effect of certain processes. A concise way to view this is that they consider conscious attention to be a priori while I consider it to be posteriori.

They cite that there is a qualitative difference between seeing something generically (like a tree) and seeing it with specificity (like an oak tree). They cite the additional need in the second case to be one of added information that is accessed with conscious attention. Alternately, I see the <u>defining</u> of the qualitative experience of looking at a tree (the cognitive part of it) as an after effect of the conscious perception and thus a separated cognitive process. In that case, one of two things are occurring; either the definition cognitively is simply registered as information without any further qualitative effect, or a quale is triggered in memory from the after-effect identification and a new conscious experience of <u>oak tree</u> manifests.

In either case, the initial viewing of the tree was an inner quale of a generic tree qualia only – not yet oak tree qualia. It is also possible that one's recognition program includes the specificity of oak tree as opposed to generic tree (i.e., the recognition program processes it, through a contribution by cognition, as an oak tree and not a generic tree). In that case, the initial experience of the qualia will be of an oak tree. The difference between these two possibilities is subtle yet important.

Another difference between the authors and myself is in the identification process concept. In the case of identifying an oak tree instead of just a tree, they believe that it is conscious attention that causes a conceptualization to cognitively occur, while I believe that conceptualization is a separate cognitive process that occurs when memory is stimulated and thus does not even necessarily require attention, though it may cause it to manifest.

If you agree with me that conscious attention is another phrase and description of controlled attention. And you agree that the controlling functionality is an effect of an externally object-stimulated <u>need</u>, then the phenomenal experience only overlaps with controlled attention in the sense that controlled attention becomes the "deliverer" of the object's characteristics (inner qualia). So, when controlled attention is focused on the color green, it is at the same time delivering the presentation of a green object and is receiving (through recognition) the quality of greenness. This is the Bridge I refer to and it is the fulcrum between the phenomenal and the physical or cognitive.

Throughout these concepts about attention and consciousness, one easily loses sight of the importance of recognition. We tend to equate recognition with attention; either that they are one and the same thing, or attention preceding recognition. It is just the opposite though; recognition happens automatically as we receive sensory information. Depending upon whether the recognition process raises that information to a higher level (reinforcement of neural memory pathways) it will then trigger attention. The correct way to view this is recognition causes attention.

That being the case, it is more accurate to consider the "overlap" as not being between consciousness and attention, but more basically between consciousness and recognition – although where there is

consciousness, conscious attention must also exist. But the point is that recognition is the cause of both consciousness and controlled attention (conscious attention, i.e., the Will). So, a statement such as, "there is no phenomenal consciousness without the Will" has truth to it but may easily be misleading one to think of the Will as causing consciousness. It does not, the object does by representing a possible need.

It is noteworthy to mention that our inventory of "needs" is vast and comes from several different sources ranging from instinct to socially developed need constructs to inner cognitively developed need constructs. Need, therefore, is a subject all to itself worth investigating for it tells us enormously key aspects of consciousness. One might even consider "needs" as the building blocks of consciousness. I would consider needs to be of a psycho-phenomenal nature with a physical neuron-based substrate.

Evolution and Conscious Attention

They make the statement, in relation to discovering evolutionary history for phenomenal consciousness, that it escapes explanation because it has no specific function. This is a very bold statement. To say that a phenomenon that rules our lives, our experiences and our conception of our self does not have an evolutionary function is flirting with the edge of ludicrousness. There is too much of us invested in phenomenal consciousness for it to be just hap stance, just a random accident of the universe.

But let's look at how things would function without experience as part of the self. It's hard to see what the difference between us and zombies would be. Wouldn't we simply be an organically programmed (but programmed nevertheless) reactionary entity whose seemingly sole purpose would be to be a part of the food chain. Were we not to have emotions, which entail phenomenal consciousness, then nothing would have any importance over anything else – we wouldn't even care if we avoided danger. You could go on and on citing examples of the enormous number of missing parts of our existence were we to be without consciousness.

At the very least, consciousness enhances our existence, gives meaning to our existence and greatly affects much of what we do. Morality, aesthetics, love, memories, responsibility and a host of other higher order abilities and characteristics owe their existence to consciousness. It is fair to say that without consciousness – we wouldn't exist in any meaningful way. So, consciousnesses "function" is to promote and cause life as we know it. The statement they made is prima facia ridiculous.

Regarding the evolution of consciousness, I would submit that as man gained more and more abilities, as his horizons expanded – his knowledge, experiences, history, pursuits, etc., and thus consciousness expanded in conjunction with them. I would subscribe to the idea that back when we were squirrel-like creatures, hiding in the rocks, that we had consciousness. That we experienced the qualia that was available for our limited capabilities to process. But in a very succinct, low-level inventoried way. Our conscious experiences would have been fairly relegated to purely survival-based needs. I'm going to quess that we didn't sit in those rocks admiring the beauty of a sunset.

But here we may ask; why? Why do squirrels not relate to a beautiful sunset, or to beauty generally? This would seem to indicate (or one possible reason) that they do not have the need to (need being the cause of attention and ultimately consciousness) – that need is an inventoried thing that evolves (by "inventory" I mean an inventory of needs) This then additionally points to a unique (at least as regards humans) pleasure seeking needs that evolved into detailed instances of pleasure delivery from sources such as art, music and sunsets. So, what is it about humans that they have these extra need-oriented inventory items? This might corelate to brain function, size, etc., or in this lies the evolutionary process.

But as our abilities, concerns, social communities, science, art and history (stories) evolved, so did our capacity to experience their characteristics, their uniqueness – the separate, unique experiences that these activities impressed upon us cognitively (in memory) and phenomenally. This would have continued through to today. Furthermore, there is every reason to believe that this will continue into the future, as we are really just children in the scheme of man's years on earth. Imagine what our consciousness might be like in 2,000 years or so. So, conscious evolution is the same as human evolution. This bespeaks of a correlation between the depth of our consciousness and conscious abilities and our experiential history (or need capacity). So, as we develop a civilization, our depth of consciousness develops in conjunction with it.

Most cognitive psychologists believe that cognitive abilities predated consciousness. My instincts tell me that without consciousness we couldn't have developed more than a rudimentary set of cognitive abilities. Since, according to my theories, attention is an effect from recognition, and recognition generally produces either conscious or unconscious attention, then attention must have evolved along with consciousness. Conscious recognition creates the enhancement of the need object or construct to the level of producing attention, which affects cognitive coding of those experiences into memory. Without conscious recognition, all sensory and other than sensory (psychological) data would have the same level of monitoring and evaluation – all would end up being non-attentive cognition, or in other words, pure instinctual responses with no mediation or regulation. Everything would be the same.

The authors make the argument that since consciousness and attention are separate things, dissociated – then they wouldn't have a common evolutionary history. However, they also insist that there are overlapping areas of consciousness and attention. How do these two facets square themselves?

Psychologists will argue that attention was an early adaptive skill due to the need for survival (food hunting, predator avoidance, etc.). But why should a non-conscious creature care if it survives? It has no concept of self, no experience of fear, etc. It would be missing all the aspects that would result in a survival instinct. What I am saying here is that instinct is not a physical, cognitive construct – it is phenomenal and phenomenally wrought. That in turn, speaks of an intelligent agency to qualia, to universal consciousness – and here we begin to get closer and closer to the religious view, to God (or universal consciousness) as the one intelligible being or dimension!

The drive to reproduce, and thus carry on the species, would also be absent for the same reason — there would be no desire that would otherwise come out of experiential feeling. The environment would not matter — cold would have no quality, nor would heat. These phenomenal experience items, otherwise brought about by consciousness, would have no potency and would not affect our behavior or our memories. There would be no empathy and thus no social abilities. Making trade-offs to live

communally would have no meaning because there would be nothing in our phenomenal memories and needs to spur us on toward those goals. Goals themselves depend upon a memory of experience.

For example, they cite fear as a fundamental motivation that draws attention to critical aspects of the environment. But fear is a conscious experience. Without consciousness there would be no fear, and without fear – no attention. Our entire existence would be akin to one recursive tic-tac-toe game – useless to play more than two or three times.

A good argument can be made for the Darwinian concept that those creatures with a greater capacity for consciousness will adapt better and carry on that trait.

They additionally make the point that consciousness is not needed for the development of a complex, integrative nervous system. True – and a battery is not needed to have a circuit, but if you want one that works it is essential! In fact, the crux of a nervous system is its ultra-sensitivity to cause and effect. Phenomenal consciousness is the essential, fundamental and first cause of everything that a nervous system is set to accomplish. It is the first cause.

Another way to look at this argument is to look at what attention is aimed at. We cannot know or be aware of an object directly. We can only be in coherence with its qualia. Qualia is the fundamental aspect of consciousness. How could attention focus itself on the phenomenal qualia – it needs intercession by something that is at least partially of a phenomenal nature.

It's not too different than the situation of people who cannot feel pain. When they lean on a hot stove, nothing happens – no reaction. This is because they are not experiencing pain. It is experience that causes reaction. No consciousness - no feeling - no attention - 3^{rd} degree burns.

Cross Modal Attention

An interesting area of study that the authors bring up is that of cross modal attention. An example of this would be where subjects were exposed to incidental, non-related sensory sounds while attending to a specific task, later, when these sounds were replicated, the subjects connected them to that task they were performing, thus indicating that there was learning that happened crossmodally and unconsciously. They concluded that different modalities must be integrated in some way and then correlated upon retrieval.

However, I believe they are overlooking the ability of consciousness to be the agent of that connection crossmodally. When the dual stimuli occurred (the task and the unrelated sound), there was a conscious experience of that which occurred, whether attentionally recognized or not. That conscious experience is retained in memory. When a portion of it happens again, consciously, then the conscious feeling matches up to the memory of the holistic stimuli and both task and sound are correlated, remembered, relived.

They even make a salient statement about this ... "The basic idea here is that integration of cross modal information and robust integration of memories create a platform for the egocentric

perspective that seems to characterize phenomenal consciousness." Here, they are ascribing a conscious reaction to these dual stimuli, only they ascribe the function as owing to cognitive processes, while I ascribe it to consciousness itself ingrained in the memory for later retrieval and recognition.

They go on to credit cross modal abilities to have increased our ability early on to adaptation as a species. Given my theory then, consciousness itself is an early agent of adaptation, something which the authors reject as not only do they consider consciousness as separate from attention, but they consider it as having evolved much later than attention. This would indicate otherwise. They also credit cross modal attention with better chances at survival. This then can be looked at as that the function of consciousness itself might be for survival.

In the next section they bring out the point that many believe that conceptual content (conscious based content) is intimately tied to language ability. Further, they reason, since language ability is a relatively recently evolved ability, then therefore conceptualization also must have evolved later than basic attention. I believe that the only reason that one might link language and conceptual ability is because we do our cognitive thinking in a language-oriented process. But this is not the only way to think, it is just our way because it is efficient. But before language existed, we thought in other ways (probably pictorially). This is likely true of animals now. So, the evolution of consciousness really would date back much further than language. In my mind, it evolved at the same time as cognition, memory and attention. I believe those four abilities evolved concurrently with one another, with attention being the final ability that accompanied consciousness. They are not one and the same, but they are dependent and integrated with one another.

They also cite as an example the dual picture of a duck and a rabbit that depends upon what features of the drawing you attend to. They claim that first there is a simple attending to the form of the drawing which then gets processed through some sort of conceptualization process of a higher order. I submit that within the recognition process, depending upon what cues were attended to (simple attention), then there will be a matching within memory of the conscious experience of a rabbit or a duck. When we switch our attention to another set of cues from the drawing, then the recognition program will match to a different conscious experience (duck or rabbit).

An interesting area for evaluation is that of voluntary attention. They make the point that voluntary attention is often associated with self-awareness (consciousness). It is interesting to observe that voluntary attention seems to have a correlation to time. That is; the longer one attends to something, the greater the self-awareness, or chance thereof. This speaks of the possibility of two things; 1) attention "deepens" as it is given more and more time to attend to something – more and more details will be recorded, and 2) consciousness may be connected to either time attended to, or detail rich recording – the more detail the greater the chance of conscious experience. It almost looks to be a hierarchy, where the further you go attentively (through a prolonged recognition process) then at some point attention transitions into consciousness.

There is another interesting aspect of consciousness. I call it, "The heart of consciousness". There is only one organ in our body that we can, and fairly easily, feel operate. If you prick your finger, you feel it at that specific point. Or if your entire leg hurts you will feel it in that extent of your body. But no <u>organ</u> has any feeling to it, except the heart. If the heart speeds up, or pumps harder, we feel it. Now, if I see green, nothing happens differently in my heart. However, the deeper emotions do affect the heart and my feeling of it. Fear produces a certain feeling in the heart, love another, longing

another, etc. When we have those deeper emotions, our conscious experience includes that particular feeling from the heart organ (rate of beating, blood flow, etc.), and thus becomes part of the conscious experience. So, the deeper emotions have that much more to them than simple consciousness of objects. I would venture to say that were we able to control how the heart is operating, we could spark and duplicate feelings of love, fear, etc.

Effortless attention is yet another area for study. It appears there is no consciousness relating to what behavioral exercise is being performed (like automatic driving). What this seems to me to be is that a set of potential conscious stimuli is occurring, and the recognition process is occurring, but conscious matching is not triggered or is avoided. This may be due to many reasons not understood yet. One might be that there is no "need" registered in the evaluation stage (because it's a rote behavior that is fully "known" as to its ultimate consequence, thus no need exists). That lack of a need-based process within memory may sidestep conscious matching. But this is purely speculative. Something however does account for a lack of consciousness in what otherwise would be a consciousness raising situation. Effortless attention seems to need repeated previous executions and/or expertise. Therefore, this is another area that bears evaluating as to why the trigger of consciousness in those situations is foregone. Possibly, if the neuronal paths are strong enough, then reinforcement of them replaces recognition and then only the neuronal action manifests.

SUMMARY

The main point of the book, one that is brought to bear over and over again in every aspect of consciousness and attention they examine, is that attention and consciousness are two separate, dissociated things. I have endeavored to challenge and/or argue against most every one of their conclusions regarding the separation of attention as it relates to consciousness. But I haven't really summarized my basic belief regarding the association between consciousness and attention.

I believe, unlike what the authors state, that attention and consciousness are intimately tied together, have evolved concurrently and, in fact, depend upon one another in a mutual "dance" that cannot easily be separated. The function I believe that is occurring is a four-fold integration of attention, cognition, memory and consciousness, not necessarily in that order, but rather in an integrative fashion playing off one another in sequences that are nearly impossible to separate into hierarchies and that are caused and initiated by the situation being confronted. Eliminate any one of the four aspects and each one becomes impossible and impotent.

Cause and effect are rife throughout these four attributes. I think it is evident the intimate relationship that cognition holds with memory. Without each, the other could not operate. It is not too hard to conceive that attention, to the external world, causes the initiation of cognition in order to translate and thus make logical, ordered sense of it. This in turn interacts with memory, both short and long term. Memory further, in turn, interacts with cognition, allowing it to retrieve various aspects that have had logical connections in the past. Memory is the reference book used by cognition to make sense of the world.

Concurrently, memory utilizes attention-cognition to continue writing that reference book for possible later retrieval. It is all integrated and dependent upon one another. This is the same integration that also takes place with internal cognition and attention, so that everything we think and do is processed together.

The final piece of integrated processing is consciousness. Consciousness, concurrently, disperses its basic experiences onto memory. Memory may be able to store sensory information automatically as an inherent process, which it picks up from attention, however it cannot categorize, group and order it for cognitive logical retrieval without an <u>associative functionality</u>. That association of sensory information comes from the holistic experience produced in conscious recognition (recognition being the connective function between memory and the conscious experience).

On the other hand, it is also the production of a logically oriented attention-cognition-memory based functioning that produces a holistic experience with which consciousness can assign its experience into memory (and thereafter cognition and future attention).

So, one can readily see the extreme interactive functioning of these different aspects of a full sensing of the world (both internal and external). If any one of them is missing, the others will not operate. So, as one walks through the woods; attention to a plant may be followed by a memory of other plants and trees which has logically been cognized as probably happening together, which itself was stored as a previous conscious experience in memory – this in turn may trigger attention on the subsequent tree or plant noticed on the walk, and so on. It all operated off one another as we strolled through the forest. And since all those processes must concurrently exist in order to be able to function, they all must have evolved concurrently.

This integrative approach to consciousness does not therefore argue against the universality of consciousness, as I have defined it. Ultimately, what allows consciousness to exist and produce experiences, is the qualia that I contend encompasses everything that is sensed, and then processed through the four-fold integration of attention, cognition, memory and consciousness. Qualia is what connects or bridges the functional world with the phenomenal world. It is at once external to us and internal at the same time, using the Will (undistracted and undifferentiated attention) to connect the two.

These explanations of how consciousness and attention interrelate, as well as memory and cognition, is the nutshell of my belief, which in effect diametrically opposes what the authors have set out to show.

A further effect of these cross functionalities is the conception that arises of the self. What more could "the self" be than the sum of all of our observations, thoughts, memories and experiences. Just because these aspects of our self can be explained functionally, does not take away from the uniqueness of self-awareness. Furthermore, because all of these "functions" owe their capabilities to a universal reality of qualia, which itself reflects the world, then our selfhood is not only a subset of the universal, but precisely because it is universal, it partakes of a commonality of ourselves and all other sentient beings. Thus, if I recognize that you are unique as yourself, then I can recognize this within myself. "You think, therefore I am" (apologies to Descartes).

An interesting point to note at this point is that if indeed all the aspects of attention, cognition, memory and consciousness are integrated, then it ought to be possible to discover the mechanism of integration, and finally have a definitive explanation of how consciousness is able to evolve and exist. However, I contend that there is no physical mechanism responsible for integration. Because they all evolved together, concurrently and in an integrative fashion, they will owe their apparent sensibleness and existence to reality itself and nothing else. Each ability (observing, thinking, remembering and experiencing) has its own functionality and capability, but the grist for the results that these abilities each produce, i.e., the effects of those abilities, are garnered from the external world mediated by qualia.

We pull our datum from the pool that is available to our senses and functionalities. Therefore, what we reflect, in the final effect, is that pool. So, it is reality that dictates the integration that takes place among the various aspects or functions. Mathematically, If A is part of or equal to B, C, D, and E, then AB + AC + AD + AE = (A)(B+C+D+E) which equals BCDE(A). It is A that integrated B, C, D, and E. In this case A = Reality. No other "universal" qualifier exists.

Finally, we come to the "Why" of consciousness. Why does consciousness even exist? I have shown that one major individual reason is to adapt to the world, to fulfill needs or react to them and thus promote the survival of the species. But perhaps this could have been accomplished without the self-knowing aspect of consciousness. Towards that end it is my belief that sentient beings exhibit consciousness as an evolutionary effect of universal consciousness. If indeed there is a universal consciousness made up of all the information about the universe – information regarding physical material aspects as well as phenomenal aspects like space and time, cause and effect, motion, etc., then sentient consciousness is the integration of all that information, a holistic observation of it all – we are then the universe's witness.

'* Note - At this point it is best to review the Author's Postscript before continuing on to a discussion regarding Emmanuel Kant's views, simply because the Postscript produces salient additional understanding as concerns everything discussed up until now. While Kant actually goes in a different direction and applies mainly to a different set of subjects.

Author's Postscript

Upon reviewing this after I had finished it, it occurred to me that I had left out an important explanation about how exactly the recognition loop is able to transmit, from physical memory, a phenomenal experience – the crux of the "hard problem".

Although I did explain that it was through calling up an inner quale, that matched an external quale, which our senses had taken in, and then transmitting that inner quale memory over to controlled and conscious attention (the Will), and although this described accurately the process by which this is accomplished, it did not address the why and the how it is that our inner quale carries with it the phenomenally remembered experience. This postscript now addresses that.

For an inner quale to be able to call up and then transmit, through recognition, our previous phenomenal experience, which was then coded into our memory – the inner memory must have with it the original phenomenal experience with which the matching of the recognition could call up and then

transmit to conscious attention (the Will). How did the original coding of that similar inner quale, with its phenomenal conscious experience, happen in the first place? It had to be coded in that way at some previous point in time – so how was that accomplished? Since there was originally, when coming across that quale for the first time, no inner quale yet developed or coded with which to match, how did this experiential coding come about?

If you remember, there was one type of attention that I mentioned which directly resulted in conscious experience without any mediating process with which it would link to consciousness from – that was Awe. We react with Awe when we come upon something that has no previous memory, and thus recognition, associated with it.

A strictly phenomenal only view would deny that any cognitive process (also sometimes called representationalism) is involved and that consciousness is wholly non-physical. I believe however, that it is the recognition program that connects the two usually, while at other times we <u>directly experience</u> the phenomenal without recognition, as when our Willful directiveness has eliminated all cognitive processes, as in deep meditation, or in the case of Awe. When cognitive processes are eliminated, which actually filter and limit direct phenomenal external qualia, recognition is skipped and the phenomenal qualia is directly duplicated in consciousness without any need for a transferring mediation.

The example I gave was that of coming across a tornado for the first time and never having had even an explanation of what that was. In that type of case, no attention is called upon and no recognition can take place since it doesn't yet exist in our memories. Instead, the experience of it, with all the various aspects that associate with it (maybe a faster heart rate, dilated eyes, fear, et.) is transmitted directly to our consciousness or conscious attention from the external quale that was emanated from that tornado (no inner quale was needed, or indeed could be formed yet). Whenever a perception is brand new this will occur, it doesn't have to be as dramatic as a tornado. It could be a glass of milk or anything new to the brain, new to our senses, which will not get cognitively filtered.

You see, the memory is in a way a limiting process – it acts as a filter. It codes external objects, from external qualia, in a physical receptacle (the memory). Because of this it blocks, so to speak, the <u>direct</u> experiencing of that external quale and would prohibit the linking of its physicalness into a phenomenal output. Without memory limiting the direct, brute, unmediated external quale, due to physically limited coding of the quale's phenomenal aspect (remember, qualia have both physical and phenomenal aspects according to my theory), an incomplete and only a physical transmission and coding would occur. Unless, that is, the original coding of the direct externally produced phenomenal experience into memory includes all the experiential aspects of the original reaction, the original phenomenal experience.

This is the case with Awe. The very first time we come across an awe-like perception of an external object, we not only code the physically transmitted phenomenal quality of the emanated quale object into our memories, but we code with it all our reactions to it – the physical representation of the conscious experience that happened along with it (emotions, heart rate, cognitive perceptions, etc.). Then, in the future when we come across that scene or object again for the 2^{nd} time (or 3^{rd} , etc.), we can call up, through the recognition matching process, the exact nature of the consciousness that was directly transmitted to us the first time, with all its various aspects, all its conscious aspects, feelings and associated perceptions. A mirror image.

Because there is limiting "cognitive prejudice", only physical aspects of the external quale are recorded in memory not including those aspects that are phenomenally based. "Cognitive prejudice" happens when an experience is routed through our coding of it and only certain parts, physical aspects, are picked up. In this way, much of the initial full experience is missed. Take sighting the color red for the first time. Everything about red is experienced but only the physical aspects are coded, not including the non-sensory qualitative aspects of it, the experiential facets that can trigger experience directly through the direct effect of those aspects upon the Will, with no mediating function (like recognition). This doesn't happen the second time you see red, or thereafter, simply because of the limited coding mechanism, which did not, in fact cannot, code the phenomenal experiential aspects of it.

Those aspects subsequently, must be relayed to the Will through the recognition process, which does not have the limits of physical coding, but rather can fully react from memory relaying of physical red, in both a physical way, and recognitions relating to the reactive, or experiential way – thus the phenomenal received by a physical medium that relays this to the Will and attention.

The recognition process, though having a physical construct, has the same facets as the Will does (i.e.: that consciousness does). Therefore, it can relay this directly to the Will due to attention. It reacts to the qualitative part of the inner quale. For the same reason that an external quale emanates qualitive, non-physical properties of a physical only object, an inner quale does so also in the recognition function. It can do this because that function is tapped into the universal qualia, because it does not limit itself to coding only. Think of it as a precursor to the Will, a precursor to consciousness. It's like when a dream sequence is transmitted to the Will and attention and thereby loses its phantasmagoric quality. In a dream, all the sensory and cognitive type aspects are there, but we are unaware of them until attention is brought to bear as we approach wakefulness. Unlike a dream however is the fact that the recognition function is picking up a physical reality, while a dream can create fantasies.

In that way, not only does an exact, or near to exact, duplicate get matched, recognized and then transmitted through our conscious attention to consciousness, but everything that was associated with it (all the accounterments) gets reacted to an then transferred and linked also. That holistic memory transfer is therefore a duplicate of a phenomenally based original experience and is therefore also phenomenal in its <u>effect</u> (but not its construction).

But I have stated that it doesn't have to be an exceptionally traumatic event or new object – it could be as benign as a glass of milk, a rock, etc. But when does such a common object, a brand new, never beheld before experience occur? It is when we are babies and young inexperienced beings (though those new experiences would continue through toddler years and so on as we grow up).

As babies we come into this world with a blank slate of memories (though we do have certain survival instincts). Therefore, every single experience, every object has no memory associated with it yet. Every one of those is processed as Awe and therefore processed directly onto our consciousness, phenomenally.

Every minute newborns are constantly being "made aware" of the new. As they process these new experiences, they are also coding them into memory. And as they develop cognition and feelings around those objects and experiences, they will code more and more associations onto it in memory for later retrieval. In this way, their first view of a chair might have a small amount of conscious data

that the baby experiences and stores, but as it computes that it is for sitting, this information is coded with it. Until eventually, a look at a chair has with it an in-depth, complex and multifaceted inner remembered experience with which to call up and link from.

It becomes quite extraordinary then that when we look adorably at a baby going coo-coo or gaga, his or her miraculous brain is going through quite a trip of constant awe!!

These new experiences and their associated aspects do not only hold true for physical objects but also hold for psychological ones like sadness, boredom, love and the host of emotions that we come to "learn" about experientially. Perhaps even, our extended length of development into adulthood, as compared to other mammals, accounts for our higher and more in-depth and developed consciousness (or vice-versa).

So, in the final analysis, it is the plethora of qualia experiences of awe that accounts for the transition of a physical or psychological construct (rock, milk, sadness, etc.) into a phenomenal conscious experience.

One last point about consciousness: it is a very complex experience. One does not just experience a rock, but rather an entire scene with which a rock may be just one consciously <u>attentive</u> object out of many, including all the associated accounterments or aspects of that scene and all the various qualia in it. Therefore, consciousness is very multi-faceted. We go through our day, incorporating whole networks of complex conscious experiences in almost everything we feel, see and do. This begs the question: do we experience multiple qualia concurrently? My belief is that we experience them consecutively – it is just that our neuronal capabilities, our memories work at the speed of chemical/electrical neurons and we therefore can put together many qualia in what seems to be a single instant.

I believe that our experience of time duration is not limited to just the now, but is reacting to a continuum whereby the immediate past is experienced in conjunction with the now. In that way, consecutive occurrences, whether they be cognitive or experiential, can be experienced at one continuum-like instant. Try calling up a melody without this ability — each note would stand on its own and have no "meaning" or context to the melodic verse. It's our ability to experience many notes at once, the immediate past notes and the current one, that accounts for a melody being produced in us. This points to a discreetness to time duration, and anything within that discreet continuum happens instantly — it constitutes the now.

It should not then have escaped your observation that if indeed, the awe causing original inner quale is a duplicate of an automatically phenomenally conscious experience, that the duplication is a physical one (though as fully in-depth as the original phenomenally conscious one and therefore effectively phenomenal). This then pushes back the hard problem to be between a physio-phenomenal external quale and a physical inner quale. It is still a solution to the hard problem (pushed back one step) but it eliminates the contention that a physical to phenomenal transfer takes place fully inside of us (from a physical inner quale to phenomenal consciousness).

It means that our consciousness is in reality a <u>physically</u> based experience! It is the duplication of the physical inner quale, which had every aspect of the phenomenal experience coded physically into it. That is a counter intuitive statement since all thoughts and beliefs regarding consciousness is that it is

phenomenally based. Not so, the phenomenal to physical is a transfer but it occurs from the external quale to the internal quale.

I was surprised to come to that conclusion; however, the logic seems to hold perfectly and explains a lot about what is really happening. It also makes sense from the standpoint that, inside us, only one type of realm operates, that of the physical or material realm. Where the realms overlap, integrate and transform is between the external phenomenal universal consciousness (qualia) and the internal material realm (our inner processes of coding and reacting to an inner quale and consequently our consciousness).

This finishes these sections and, as regards my core belief, accounts for a mantra that says, "Everything is Qualia" – and all of that qualia results in a deeply rich painting.

Post-Postscript (Phenomenological Natural Capabilities)

The crux of my solution to the hard problem is my contention that it is our original reception of new objects (as a baby and child) that produces a state of Awe which allows for direct experiencing of the associated qualia and thus conscious phenomenal experience. Upon the occurrence of Awe, after the experience, it is coded in association with that object or qualia. Subsequently, when we come across that object again, we match it to the original coded experience, receive this coding, re-react to it and thereby have a duplicate experience plus any added intelligence that we might have subsequently added to that object's physical coding.

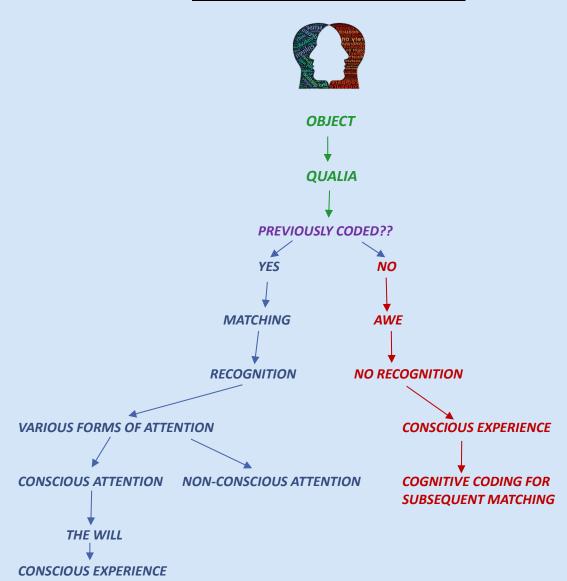
This theoretically works only if when we experience Awe, a direct phenomenal quale can be received by us directly – non-physically. Therefore, there would have to be an inner ability to receive direct phenomenal datum without any contribution or processing from a physical source. A direct phenomenally based ability to experience qualia, and then only in cases of Awe (first experiences with that object or qualia). What then, and where, is this ability and how does it work?

I readily admit that so far, I cannot say <u>how</u> this works only where it works (recognition process, but I can indicate as to <u>why</u> it works that way. This would be due to the contention that cognitive processing filters and precludes our natural ability to experience the phenomena directly (in whatever way that actually works). Once we have coded an experience or quale cognitively, that becomes the primary, and indeed, the only source of interpretation and reception. It is a barrier to our otherwise natural processing of things phenomenally. It is limited as to what it had coded and nothing more than what it had coded.

I am saying that without any cognitive filtering over-riding of our phenomenal abilities, we would purely directly experience qualia or objects (and psychological states). It means that we are born with the ability to only process objects phenomenologically, and as we go about coding and coding and coding cognitively, we lose, or better put, we over-ride that natural ability. Interestingly enough, I believe that animals, who cannot think linguistically, retain more of this ability to phenomenologically process external objects and happenings. This in some ways accounts for their unlimited devotion and love, they do not limit it through physical processing and thinking (though getting fed by us also has a lot to do with it!).

It is only then in cases of Awe that our physical cognitive processes are <u>suspended</u> and we revert to our original phenomenological capabilities. They are suspended due to the absence of any prior coding of that experience to match up to. That capability is the ability to directly receive qualia in our conscious attention, Will, consciousness. It's not that there is a special process for this, it's more that our cognitive abilities block and over-ride that natural phenomenal process. Recording and memory, which are originally blank, replace our basic, and possibly more primitive ability to process things directly with no linkage or transformation needed. It is the onset of coded memory and the filling up therefrom that creates the hard problem (of which I have laid out my theory for solving in this book).

PHENOMENOLOGICAL PROCESSING



EMMANNUEL KANT

The Make-up of Space and Time

In the rest of this paper, I examine what I find to be the most interesting aspects of these subjects as well as the most challenging; that is the views of Kant. The first section on Kant's philosophy is from Idan Shimony's discussions of Leibniz, Kant and Boscovich on the Relationality of Space – the Make-Up of Space.

All three thinkers (Leibniz, Kant and Boscovich) regarded matter as logically prior to space and advanced relational and derivative views of space. Leibniz argued for relational and ideal space in order to resolve the problem of the constitution of matter. Kant had the same motivation for suggesting a relational account of space. Yet he suggested that to resolve this problem it is sufficient to postulate a relational and real space and monads which are physical rather than mental. For Boscovich, the view that real space is derivative and discrete was the outcome of a theory of matter designed to preserve Leibniz's principle of continuity. Thus, Leibniz's notion of relational space proved to be a fruitful philosophical idea. It yielded bold and intriguing attempts to decipher the nature of space. For all three thinkers, the relational account of space was combined with a dynamical view of matter. Thus, it was integrated in theories of nature that introduced novel scientific ideas: Leibniz's theory of nature suggested, for example, a rudimentary formulation of the principle of conservation of energy, while the Kant-Boscovich model of matter is of historical importance as the forerunner of 19th century field theories and certain dynamical conceptions of matter in modern physics.

The issue that consumed 18th century philosophers was whether space took up space! That is; does space have a physical make-up that is "container like" or is it something phenomenal that only reflects the <u>relational</u> aspects of physically indivisible monads (relational physical monads seem like a contradiction to me).

The argument was from Leibniz who philosophized that space is divisible and could forever be divided into smaller and smaller parts. Since monadic physical structures were, at their monadist extreme, non-divisible, then how could a monad exist "in" a space if no divisibility could take place in spite of the concept that since space was divisible, then monads should be likewise if they caused space by their relational aspect – you can't have division of that relational aspect yet be indivisible in its physical aspect. This was the crux of Leibniz's argument.

Kant however thought space was an entity and separate from monads, therefore a monad could exist, non-divisibly, within a divisible space. Space, in that view, was not a relational phenomenon between objects.

This all predated Plank's discovery of the smallest possible spatial and object-oriented dimension (dimension in the measurement sense). Given this concept, space becomes not an object relational entity as Leibniz thought. What is it then – why does it exist and how does it exist?

Space, in our theory, is begotten from energy distributing into materiality, consciousness and <u>space</u>time.

That being the case, it would be given that the breaking up of energy is such that each of those dimensions (not measurement dimensions but rather cosmic dimensions) are of a different basic nature; Materiality's nature is that of physical existence, consciousness's nature is that of phenomenal attributes, qualities or qualia. And what of space? Space's nature, we contend is neither of these. One might consider it phenomenal, but that is just because it is not physical. It is in actuality also different than the phenomenal definition we carry as applying to consciousness and qualia.

It gives to materiality a location, <u>a place to exist</u>. It does this concurrently when the physical aspect of energy materializes (consciousness is also formed at that instant). This makes sense, after all, if you accept that energy is the progeniture of these three dimensions, then the different aspects come into being <u>with</u> each other, each having a different nature. So, space is a location, and Plank space is the indivisible extent of that location. What then, and why then, and how then – do the spaces <u>between</u> objects (as opposed to inherently within objects) come about? It seems as though this must be space that has been formed by itself, alone - not in conjunction and concurrently with an object and with consciousness.

Our answer to this is that the spatial existence that exists in locations other than that which an object takes up (in other words all other locations – the container-like spatial content) is part and parcel to energy before it became kinetic. In other words, that space is an aspect of <u>potential energy</u> (as delineated from kinetic energy, kinetic energy being the distributive energy into the three dimensions of space-time, materiality and consciousness). In a sense it is <u>potential space</u> (the potential to "house" objects which is different than actually locating an object).

That space has the property that Leibniz concluded – that of a continuum of divisibility. There is no Plank limit to it. It reflects infinity at both ends – at the furthest reaches it is infinite, and at the smallest reaches it is infinite (in fact it encroaches and enters into object spatial extent – a negative continuum so to speak). Therefore, both Kant and Leibniz were correct. Leibniz upon materialization of objects was correct, Kant a priori to the material objects was correct (or actually with them). Also, in that sense both Kant and Leibniz were also incorrect. Kant, in this schematic was wrong because space is not relational in its potential form - because it is only relational when it is object dependent. Conversely, Leibniz was wrong because prior to objectiveness space is not relational.

This brings up a new and interesting concept. This points to the fact that within potential energy (before existence happened) there were "properties" of the three dimensions that energy is made up of. These three properties, before the advent of kinetic energy, before geometric causation of kinetic energy, each had a potential aspect to them that was different than they would come to have upon the advent of existence.

Therefore, not only is energy always existent in one form or another (remember energy cannot be created or destroyed so neither can its dimensions), those forms being in one realm; that of potential energy, and in the other realm; that of kinetic energy, but the three dimensions of energy also are and were always existent too. It also points to the fact that the aspects of potential energy (potential materiality, potential consciousness and potential space) continued to exist where and when kinetic energy did not, and still continue today within the potential spatial extant (between objects). The

"space" between kinetic objects today that exists is potential space (with its non-relational property) as does potential consciousness and potential materiality.

What does potential consciousness consist of? It would consist of non-relational, undifferentiated qualia. And because it would exist concurrently with potential space and time, then it would exist, undifferentiated, everywhere and everywhen. It is when kinetic energy manifests that qualia breaks up into its individuated qualities, prior to that it was everything, and even today – within the "nothingness" of inter-object space – it exists as all qualities at once and everywhere (in the everywhere of potential space).

This is interesting in its own right because it means that the individuated, differentiated qualia we experience is a portion of all experience. This is similar to experiencing a portion of "God". In that sense, God (in our case) energy, broke itself up into billions of parts and that is what makes up the universe; physically, consciously and in spacetime.

As an interesting side note, it is my contention that when you focus your Will/attention on no object at all, not an inward nor an external object, then what you tap into and cohere with is the everything of consciousness – all qualia, undifferentiated. This equates to becoming one with God, nirvana, energy (take your pick of descriptions). This comes about in the state of pure and perfect meditation.

Therefore, materiality must also exist in some potential state concurrent with those potential dimensions. What is that state though? It must be one of two aspects; either it is infinitely material or in other words; the undifferentiated unification of all forces everywhere within the infinite potential space, or the other aspect would be that it is, at root, made up of the phenomenal aspects of those forces – that is: the forces, at their most indivisible base, must be phenomenal.

Objects as forces would then be originally ethereal and non-physical. That would fit with the ultimate ethereality of consciousness at that stage. I contend that it is both, depending upon which vantage point it is being viewed from. From the viewpoint of materiality (our only way to view things because we are physical) – it is the unification of all forces everywhere. From the phenomenal viewpoint (that of consciousness) it is ephemeral and phenomenal at its base. It also seems to suggest that the unification of all forces, cancel each other out – a very interesting concept. If that were the case, then the subatomic missing force of gravity (or at least in any effective sense) would account for materiality. But this is getting way upstream from our topic!

Either way, the vast expanse of the universe is made up of these three potential dimensions and has the characteristics of unlimited and undifferentiated, non-relational and indivisible existence. This has many varied consequences on the true make-up of our universe – on reality itself.

One last point – just as space is not relational and divisible in its <u>potential</u> form – so is time. Time would be infinite and all at once everywhere that potential space exists (the vast extents of the universe). It is only relational as it relates to objects – time on that scale is indivisible at the Plank scale, along with objects and consciousness – they are absolute and ubiquitous otherwise in the stretches of space between objects.

One view is that space and time exist independently of all possible objects and object relations, or perhaps that space-time points exist; and relationalism, the view that space and time depend for their existence on possible objects and relations, or perhaps that space-time points do not exist

According to our description, both are true depending upon whether it is space as regards its connection to an object, or its connection to potential space (potential energy).

Leaving aside questions about ontology, there is a distinct—or at least potentially distinct—issue regarding space and time: what is the origin of our representation of space and of time? This third issue arises from the sense in the early modern period that our idea or representation of space and time must somehow be importantly distinct from our idea or representation of ordinary physical objects. Many believed that space and time are causally inert and therefore imperceptible—how then are we are able to represent space and time at all? Few are willing to deny that we have a representation, not merely of spatial and of temporal objects, but also of space and time themselves, so there is a genuine puzzle lurking here. Are space and time somehow dependent upon the mind for their existence?

Yes – they are through their dependence upon qualia, which interacts with the mind, to have a conception of space & time through the process of recognition (space and time have an inner and outer quale to them). However, the above puzzle, as he puts it, is no different than the puzzle of the mind-body hard problem, just that space and time take the place of consciousness in the problem.

The view that space and time are actual entities is meant to represent the Newtonian position, and the view that they are determinations or relations of things, the Leibnizian position. Later in the Transcendental Aesthetic, Kant refers to the Newtonians as the "mathematical investigators" of nature, who contend that space and time "subsist" on their own, and to the Leibnizians as the "metaphysicians of nature," who think that space and time "inhere" in objects and their relations. Actually, to inhere in an object and to exist only relationally are diametrically opposite things – one is real (inhering) and the other is representational.

While Kant does clearly allude to this theoretical background, it is noteworthy that views of the sort he articulates in the Aesthetic—that space and time are transcendentally ideal, that they are mere "forms" of intuition, that they depend upon the "subjective constitution of the mind,"

This can only be considered as true if one extends qualia to the subjective judgement of the mind, but the inherent reality of space and time is not ideal, they are absolutes and fundamentals and inhere through qualia.

Newton construes the true motion of an object, as opposed to its merely "apparent" motion, not in terms of its change in relations to other objects, as Descartes had done in his Principles, but in terms of its change of absolute place. So, the very idea of absolute or mathematical space helps to express what true motion is. Discovering the true, as opposed to the merely apparent, motions of objects, so that one can then determine the forces that cause these true motions, represents one of the principal goals of Newton's Principia.

The" true" motion of an object is its motion in relation to its other properties (spacetime and consciousness) not to its relation to the "container-like" aspect of potential space. Therefore – motion is inherent within an object, as is time and space. Motion, being a function of time and space (they are interchangeable – see Mirrors for discussion), and time and space being an integral part of an object through energy transformation/distribution – therefore, motion is an inherent part of an object. When an object moves, it is moving through (or more accurately – with) space and time. Space & time move along with the object and it is that "along with" aspect that is the nature of motion. Yes, it

changes place locations within a certain duration — but each "place" and "time" is within the object itself.

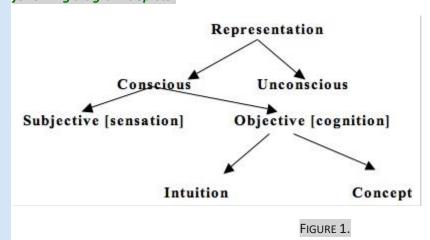
Motion cannot occur in relation to potential spacetime because potential spacetime is nowhere and everywhere, and thus could not be an absolute with which to make reference to. However, if spacetime is the location and time where an object exists, then as it moves, it does so in relation to where it was a moment (or location) before (this is cause and effect). So, motion is relative to the object itself. This means that motion is a fundamental property of relational spacetime and of an object.

Think of it this way; remove the conception of a physical object moving and conceive instead of a location appearing at different co-ordinates over specific but varied durations – that is time & space changing and is the essence of motion. The motion itself does not exist – only the relations of time & space to themselves exist. Once you impose an object onto the varied times & spaces you get the appearance of motion within our senses (from qualia).

Therefore, Newton is wrong about space being absolute. It is so only in its potential state – but that is not what Newton was referring to. And Descartes is essentially correct (though he considered it as relations to objects while we consider it as relations to itself). It is also possible to define "true" motion as motion in relation to spacetime.

Kant does discuss the important notion of the "motion of the subject" in a famous footnote in §26 of the Transcendental Deduction. Is that kind of motion under discussion, perhaps implicitly, in the context of the Aesthetic? Kant does not think that the "motion of the subject," for instance in drawing a circle, is empirical, but he does think that it requires—indeed, it apparently exemplifies—the unity of the manifold of intuition imposed by the unity of consciousness. This is simply the qualia from consciousness bridged to from the Will. So, Kant here considers motion as a quality that gets enjoined to the senses when recognized.

In a famous passage in the first Critique, Kant indicates what he takes a representation to be as the following diagram depicts:



Kant regards an intuition as a conscious, objective representation—this is strictly distinct from sensation, which he regards not as a representation of an object, property, event, etc., but merely as a state of the subject. Whereas sensations do not represent anything distinct from the sensing subject 152

(including perhaps the state of the subject's body), intuitions are objective representations. He is mistaken however in his contention that sensations are not distinct. Distinct, is the nature of qualia and qualia is the nature of sensations. And intuition is of cognition which is subjective and not objective – his whole schemata is backwards!

But roughly speaking, intuition represents some X—where X might be an object, a property, or perhaps even an event—as one represents X in perception. Thus it represents X as, for instance, that there. ^[4]In contrast, a concept represents X—where, again, X might be a property, an object, or perhaps even an event—by placing X within one or more classes.

Here again he's incorrect as he talks of a representation, while X is in actuality "that which it is" in and of itself – qualia. The recognition that occurs and is responsible for us experiencing X is not a representation – It is a direct correlation – a coherence.

There remains a question, however, of how we are to understand the very idea that we can have pure—or a priori, i.e., non-empirical—intuition at all. That is the nature of qualia interaction.

For he famously contends that space and time are nothing but forms of intuition, a view connected to the claim in the Transcendental Aesthetic that we have pure intuitions of space and of time. This means, as we have seen, that we have non-empirical, singular, immediate representations of space and of time.

We do have what Kant calls intuitions (and we call recognitions), in terms of the quale of space and the quale of time – but that does not mean that space and time do not exist, as Kant here contends. In fact, it means it is objective and therefore empirically does exist – as we have described above.

One goal of this entry is to clarify this idea. It is not a stretch to contend that this idea represents one of Kant's most distinctive contributions to modern philosophy, although characteristically, it is profoundly difficult to grasp. And wrong!

"By an exposition (expositio) I understand the clear (if it is not explicit) representation of what belongs to a concept; it is metaphysical if it contains what the concept presents as a priori given" (A23/B38). By a concept (Begriff) in this context I take Kant simply to mean a representation. It might be that because he says that it is a priori then it saves this sentence in that I take a priori to mean of itself.

One might wonder what type of view is at issue here. One potential target is a classic empiricist account of our idea of space, such as that found in Locke. Acknowledging in the Essay that the idea of space seems to be "remote" from our perception of objects, Locke contends nonetheless that its origin lies in experience (Essay, 2.13.2-4): perceivers observe objects in close proximity to one another, including the distance between objects, and then repeatedly add the ideas of these distances together, thereby obtaining an idea of as large a single space as they please. (there is on "adding of ideas", there are just various quales of various sized spaces). According to Locke's view, a version of which was also defended by Hume (Treatise, 1.2.3), we obtain a representation of space—not of places, but of the one all-encompassing space, which may be akin to geometric space—from the perception of spatial relations. (I agree, however, it is not just one quale of one all-encompassing space, but rather various quale's at various relational sized intervals).

I contend that our cognition of it as an all-encompassing space, or our experience of it that way — comes from a quale that is responsible for our sensation of an all-encompassing space, no different than our sensation of the quality of greenness. It is the quality of spatial extent and stems from consciousness's relation with potential space.

Kant states: Space is a necessary a priori representation that underlies all outer intuitions. One can never forge a representation of the absence of space, though one can quite well think that no things are to be met within it. (that is contradictory in my opinion). It must therefore be regarded as the condition of the possibility of appearances, and not as a determination dependent upon them, and it is an a priori representation that necessarily underlies outer appearances. (A24/B38-9). This sounds like potential space.

But here again, he speaks of it as a representation, while it is not. Unlike what he contends – an object that has space as an integral part of it is definitely a determination that is dependent upon things (objects). The space between, which is likely what he is thinking of, is of a different nature and in its case; is dependent upon the nature of potential space. We can experience this through qualia.

In the third and fourth arguments, Kant contends that the representation of space has a specifiable content that is incompatible with it being a conceptual representation. That is, he argues that our representation of space is not a concept, but is in fact an intuition—it is a singular, immediate representation. As we have seen, the distinction between sensation and intuition indicates that this claim does not amount to the idea that we have a sensation of space (an odd idea, it seems). Instead, it amounts to the claim that we have an objective representation of space, but one that is singular and immediate, rather than conceptual.

This sounds like he is saying that we have an "experience" of space that we process and thereby represent. In this I would agree – our experience of space is the quale associated with spatial experience and recognition processing gives it the form of a representation.

However, it certainly seems like a stretch to say that space itself might be one of those things. That is not merely because space is not an object in any clear sense; it is also because space itself, in this historical and philosophical context, is not something that has a causal impact on me. So, it remains doubly difficult to see how I might conclude, with Kant, that I have something akin to a perception of space.

I don't agree – I believe we "animate" many ephemeral things to be akin to an object (like space) through our recognition of the quale associated with that ephemeral thing. So, for example, we "objectify" many non-objective things; like space, sadness, pain – through the process of consciousness recognition and processing. Also, space absolutely has a casual influence upon the physical through motion and time.

Space represents no property at all of any things in themselves, nor any relation of them to one another (yes it does – motion and time through cause and effect), i.e., no determination of them that attaches to objects themselves and that would remain even if one were to abstract from all subjective conditions of intuition. For neither absolute nor relative determinations can—prior to the existence of the things to which they pertain, thus a priori—be intuited.

This impresses me as saying simply that there is a lack of knowledge about space within objects, cognitively a priori. However, consciously, through qualia, I believe that the spatial aspect of an object existing in a "place" is a priori an aspect of that qualia and therefore Kant would be wrong.

Kant reaches the famous conclusions that we can speak of space "only from the human standpoint" (A26/B42) and that space has "transcendental ideality" (A28/B44). This is the heart of one of Kant's main positions in the Critique of Pure Reason. By speak, I substitute; think. Yes, we can only "think" from a human perspective – but we can feel or experience from a universal recognition (perspective).

Leibniz asserts in his last letter that relations are "ideal" because they are neither substances nor accidents, and are therefore not elements of reality (L5: 47). As he writes in the New Essays, in reality there are only substances and properties of substances; the mind "adds" relations (New Essays, 2.12; cf. also 2.30.4 and 2.25.1). Since space is the order of the possible relations of objects, it is presumably ideal in the sense of being mind-dependent. But Leibniz's point here seems to be that just as people reify relations, thinking they exist independently of objects, they reify space, thinking it too exists independently of objects. So even when Leibniz discusses the ideality of space, he does so to indicate that we need not think of relations and of space as absolute in order to account for the tendency toward reification.

He would only be correct if it was true that space has no distinct, separate existence from objects. It does so though on two fronts; 1) As a separated dimension that goes into making up and accommodating an object of three dimensions, and 2) Potential space (all non-object spatiality) that is of itself only. Because of these two cases, space is thus not ideal but is objective and absolute. It is also noteworthy that substance or objects are made up of atomic elements but are primarily made up almost totally of space between atomic elements – protons, neutrons and electrons. Without space having an identity, objects could not exist, without the space between atomic elements, atoms could not exist. In fact, that is how the dimension of space interacts with that of materiality.

Kant: But I understand under the transcendental idealism of all appearances the doctrine according to which they are all together to be regarded as mere representations, and not as things in themselves, and accordingly that space and time are only sensible forms of our intuition, but not determinations given for themselves, or conditions of objects as things in themselves. This idealism is opposed by transcendental realism, which considers space and time as something given in themselves (independent of our sensibility). The transcendental realist therefore represents outer appearances (when one grants their reality) as things in themselves, which would exist independently of us and our sensibility, and therefore also would be outside us according to pure concepts of the understanding. I think that transcendental realism is anthropically true.

Although transcendental idealism is correct in that I agree that objects are once removed from the absolute nature of qualia through our recognition process, it nonetheless doesn't take into account the special nature of space and time, and how that "special nature" remains when it is transformed through our cognitive apparatus.

The underlying properties of space and time as they effect objects is what I am calling a "special nature". Think of space and time as having a certain "role" to fill as they regard objects. That role is a function of the relationship between an object and its dimensions (in the case of space) and its

persistence (in the case of time). This relationship persists as a property, irrespective of any transformation of the object when we become conscious of it. Therefore, the essential nature of space and time retains itself upon any object transformation. Think of it this way; if there was no property of length, height and width — material things would have nowhere to be. And if there was no persistence or duration, then they would have nowhere to be. The phenomenal has no ability to put your finger on it!

Because the nature of space and time is something other than physical or phenomenal, because its primary nature is that of an effect (as it relates to an object), then that proto-phenomenal nature does not change from a transformation. In effect, space and time do not transform, objects do, and with an object's transformation, space and time's nature stays the same. Mathematically this might look like the following: If X (an object) = S-T (space-time) where S-T is unchangeable; then X^A = S-T. So, due to this "special nature" of space and time, they are not representations but rather they retain their essential nature. Our experience of space and time has a one-to-one correlation and is not once removed and transcendental idealism does not hold.

We dispute all claim of time to absolute reality [absolute Realität], namely where it would attach to things absolutely as a condition or property even without regard to the form of our sensible intuition. Such properties, which pertain to things in themselves, can also never be given to us through the senses. Therefore, herein lies the transcendental ideality of time, according to which, if one abstracts from the subjective condition of our sensible intuition, it is nothing at all, and can be considered neither as subsisting nor as inhering in the objects in themselves (without their relation to our intuition).

Here Kant rejects my argument that space and time have a special inherent nature that retains itself through to our conscious recognition. But even if his logic within his assumptions is correct – that is; that space and time are only sensible intuitions – his following argument that if you removed those sensible intuitions then you would have nothing, does not hold. The "nothing" that would be left would only be nothing regarding our perception of space and time, but space and time themselves would still have their own a priori existence.

Also, keep in mind that he insists that it is "not through the senses". This is somewhat true, but he uses this phrase as a catch-all for everything we experience. There are things we experience (qualia) that are not experienced through sensation (senses). For example; you cannot touch, smell hear, taste or see "sadness".

Those, however, who assert the absolute reality [absolute Realität] of space and time, whether they take it to be subsisting or only inhering, must themselves come into conflict with the principles [Principien] of experience. For if they decide in favor of the first (which generally is the position of the mathematical investigators of nature), then they must assume two eternal and infinite self-subsisting non-entities (space and time), which are there (yet without there being anything actual) only in order to comprehend everything actual within themselves. (this is circular logic based on an assumption he makes in it that space and time are not self-subsisting).

He is making a leap of assumption that they are "non-entities". I insist that they are entities of another kind that we are not familiar with (not physical and not phenomenal). Taking that to be the case would make his argument fall apart because in that case space and time would have an identity, 156

an existence – just not physical or phenomenal (we might call it "physio-phenomenal"), and therefore would actually be there, unlike what he concludes.

To once again underline this point; He's speaking of Newton's views, which I agree with Newton. Kant is saying that you cannot believe in an absolute reality of space and time while at the same time consider them as "non-entities". The reason Kant is wrong is that he doesn't consider that space and time are of a nature that is both not physical and not consciousness related – it is its own third type of thing that we do not comprehend because we only have relations with the physical or the qualia aspects of things. So, because he does not "know" of anything that could be non-physical and non-phenomenal, he considers them non-entities.

Thus, for Kant, the Newtonians regard space as an infinite substance-like entity that is imperceptible and causally inert, a view that Kant regards as absurd on general metaphysical grounds.

I show on the contrary, first, that space (and time too, to which Berkeley gave no attention), along with all its determinations, can be cognized by us a priori, for space, as well as time, inheres in us before all perception or experience as a pure form of our sensibility and makes possible all intuition from sensibility, and therefore all appearances (Ak 4: 374-5).

Kant is saying, again, that we know space or time only because of our senses and not through our experience – an argument I disagree with.

So from Kant's point of view, Berkeley rejects transcendental realism—he rejects the notion that space is a thing in itself, or a property of things in themselves. [24] He presumably also rejects the idea that space and time are independent of intuition. In the Transcendental Aesthetic, Kant admits that one cannot "blame" Berkeley for falling into a radical version of idealism in an attempt to avoid the "absurdities" of transcendental realism, absurdities into which Kant takes the Newtonians to have fallen.

On Causation

We come now to Kant's views on Causation. Cause (and effect) are all important to my way of thinking. It is only through the nature of cause and effect that not only does the universe unfold, but it is through them that our consciousness can recognize experience when it occurs. Without cause and effect, our experiences would have no correlation within our cognitive structure – there would be no reasonableness or sensibleness to the data we receive when we have an experience. Without that logical recognition – no "Bing" could occur. An experience would be impersonal and impotent. The experience of green would not register as coming from an object. It would simply appear with no relationship that we would discern. Without the relationship (which is what cause and effect begets), we very well might see green, but we would have no specificity that it was a color. It would have an equal effect as all other experiences and so all experiences would be the same with no differentiation. Without differentiation, without contrast, we would not be connecting the quale to the object in any way. Without object specification, everything would be the same. Therefore, the subject of what is causation is an all-important one as regards experience and consciousness.

In addition, it is cause and effect that is responsible for the unification and interaction of the three separated dimensions of energy. Without those interactions and interrelations among the different separated dimensions, nothing could exist. Think of it this way; if energy, upon breaking into three components did not retain connections among them, then energy would fall apart – a direct violation of the conservation of energy. And without energy, the fundamental monad of existence, nothing would exist.

Here are some other initial thoughts of mine regarding causation:

Cause and effect are one continuum of the inherent properties of time and motion within objects. A cause-effect action is an exchanging of a certain quantity of motion for time (or vice versa). In the phenomenal and physical world, we consider certain effects to stem from certain causes (in that order), whether those comprehensions are of the nature of motion and time or are otherwise. Thus, we may consider that a car was demolished as a result of a train colliding into it, and we call the "demolishment" an effect. But here we are extending, through logic, the condition we call demolished. All that happened from the vantage point of cause and effect was a transferring of a certain quantity of time and motion (adding up to 100%) into another form of such (in this case the car received all motion and no time (time being "at rest" in this case). The extension of our cognitive logic that this "rest case" is better termed "demolition" is borne of relational identification. Our relational, logical, identification from our cognitive make-up is not the reality itself, but rather encompasses judgement. We have translated the cause and effect of motion into what we have labeled "a demolition" in our mind. In realty what happened is a transferring of causal effects – time and motion.

This contra-oriented explanation between reality (time & motion) and judgement is true of all physical cause and effect actions. Non-physical cause and effect are something of an entirely different nature. Take for example; "he yells at her and she reacts with fear". This non-physical chain of events is borne purely from judgement and observation cognitively and therefore has nothing to do with the reality borne nature of cause and effect. To realty (if reality had a mind) all that happened was that sound increased in her direction.

The other aspect of physical cause and effect is that of ordering things. This too is a "vantage point" judgement borne of our cognitive logic. In reality all that has happened was a transferring of an inherent amount of time and motion between objects. We ascribe an "order" to those things (effect coming after cause) simply due to an entropic characteristic of the cause and effect transfer.

We order things as before and after in terms of the change in motion only (we do not order in relation to the change in time). This is so because motion constitutes part of our physical world and, being physical, we define everything within a physical construct (not a time oriented one). Time, is not of the physical world, it has its own nature, and that nature is not something we can call upon from our physically based cognitive (or even sensory) nature. It is noteworthy to point out here that even though space and time is neither physical or phenomenal – upon change (motion or duration) it accrues physical aspects, which is what Einstein discovered (that velocity, the speed, accrues mass).

So, order, is from the change in motion or time — either increased or decreased. It matters not which change occurred (increase or decrease) — that is not the arbiter of ordering. It is the change itself that

is responsible for what we call ordering. So, if a billiard ball, with motion, collides into one at rest, (with no motion), then there will be an increase of motion in the second at rest ball. We will ascribe to the second ball an effect – an ordering of "after" to its reaction. However, from the vantage point of the first ball that halts its movement upon hitting the at rest ball and thereby comes to a stop – from that vantage point, the first ball's reaction is the effect, in spite of the fact that in that vantage point there was a decrease in motion. So, in the case of the demolished car, from the vantage point of the train – the train's decrease in motion was the effect, but to the car – its increase in motion (or better termed; force), which resulted cognitively in demolishment, the increase was the effect.

So, as Einstein so aptly showed – cause and effect are relative to the observer (or in this case; to the observed object). It is noteworthy in all this to observe however that if one utilizes time as the arbiter of order, then order will be ascribed in the reverse of what it is when motion is used as the arbiter. Since in reality, both of these aspects are exchanged (both time and motion), then there is no such thing as ordering in reality – they cancel each other out in a subjective cognitive sense. (time is the reverse of motion as Einstein showed that as motion increases, time slows down – and as time increases (speed or duration) then size dilates or decreases. What that means is that in the realm of "things happening", there is no absolute consequential order to it – therefore, cause and effect – the way we understand them – do not exist in reality and so order does not exist either. Reality just is. We are the "receivers" of order through our association to the physical (motion oriented) realm. Order in reality is as follows:

Physically – effect after cause
Universal Consciousness (qualia) – no a priori order
Spatially or Time oriented – Relative (vantage point of) to the object being observed

Now for the manuscript at hand:

First, he describes Hume's lacuna concerning causality, recognizing the contemporary debates over his "final position." As he argues, there is no empirical warrant for the necessary connection between things or events that is assumed in any determination of causal relations, and, for him, asserting that one thing causes another involves a habit of thought, namely, a habitual conjoining of phenomena together, namely, those which we have previously experienced as accompanying one another. While Hume seeks to demonstrate that determinations of necessary causal connection are without empirical warrant, he indicates that the concept of causality is an important one for human beings in that it enables them to function successfully in their everyday lives. However, the joining or ordering of empirically conjoined phenomena (phenomena that occurs together in a correlated manner) is objectively together and so continues that property into our consciousness.

Kant attempts to overcome Hume's skepticism by giving an account of how causality is an a priori concept of the understanding, namely, it is part of the necessary conceptual frame through which rational beings constitute their experience actively.

Accordingly, twentieth century evolutionary epistemologist, Konrad Lorenz, argues that, together, the a priori concepts of the understanding, including the notions of substance and of causality, provide an enduring, biologically hardwired, and inheritable framework by which human beings qua rational beings, constitute their experience in our contemporary epoch. He ascribes order and causality to biology and cognitive evolution, but rejects that it actually empirically exists, a view point I disagree with.

Third, by outlining how Hegel responds to Hume's skepticism of causality by showing how the dialectic pervades the notions of substance, causality, as well as the process of thinking by which determinations of necessary causal connections are made and are articulated,

Quantum indeterminism seems incompatible with Kant's defense of causality in his Second Analogy. The Copenhagen interpretation also takes quantum theory as evidence for anti-realism. This article argues that the law of causality, as transcendental, applies only to the world as observable, not to hypothetical objects such as quarks, detectable only by high energy accelerators. Taking Planck's constant and the speed of light as the lower and upper bounds of observability provides a way of interpreting the observables of quantum mechanics as empirically real even though they are transcendentally ideal

I disagree that quantum mechanics are transcendentally ideal, just because they do not become one specific reality until probability and the collapse of the wave function completes, does not mean that at that "completion" an objective and empirical reality does not exist – it does. The state before that can be considered "real" also, the wave function is real in and of itself. It's just that in that wave function state, specific object properties do not yet exist. This becomes an interesting argument for a phenomenally based underlying reality to materiality, thereby unifying, in a sense, existence to be phenomenal at base, in all three dimensions. That is an interesting concept that bears more investigating and enjoys a certain elegance and simplicity, as well as symmetry.

Of these four theories, it is only Kant's that I agree with. But what of the psychological ordering of cause & effect inwardly? Is there any correlation to the objective definition of how they work (stated above by me)? I believe, our ordering is an outgrowth of reality's ordering process. As said above; objects transfer time and motion, and in no a priori order. It is "vantage point" dependent as to what that order is.

It is my belief, that this transference is reflected within our psychological make-up through the following function(s); First, our sensory ordering comes about through our reception of qualia. As part of that reception (recognition through attention) we become more and more subject to how qualia are presented to us vis a vis ordering and phenomenal co-joining. To understand this, one must understand how cause and effect operates among qualia within universality.

Because qualia have an intimate connection with space-time (motion-time – motion will be shown later in this to be an aspect of the spatial, so that when we refer to motion, it is akin to referring to space). Because of qualia's connection there, the exchange principle of cause and effect, of time and motion - is represented (in an equal sense) as part of the interaction of the universal and of the physical within qualia. That is; since the universal is another aspect of the physical flowing from the distribution of energy to those dimensions – qualia will incorporate that process of ordering within the universal collection of qualia.

Recall we stated that in its primeval "potential" form — consciousness encompassed all qualia as one all-pervading phenomenon (since energy was homogenous within that potential state — so too was consciousness's qualia and so too was its connection with space-time and thus time and motion from physicality's aspect of it).

Upon manifestation into the universe (kinetic energy distributing the three dimensions of space-time, materiality (physical) and qualia (consciousness)), upon the manifestation everywhere of energy, qualia ordered itself within the constitution of a physicality vantage point – that is; with the same relationship of time and motion that a physicality based vantage point has.

Therefore, even though there were reams of separate qualia, which supposedly could not have a cause-and-effect aspect since they are each singular (cause and effect seemingly demanding two entities to occur), those separate qualia's (quale's) had the same capacity of time and motion within them as reflective of the dimension of physicality within their existence (each of the dimensions have their version of the characteristic nature reflected in each other – in this case, time and motion).

Therefore, upon an individual experiencing multiple co-joined quale's, those quale's will have their portion of time and motion, dependent upon the context that they appear in. So, if one were to experience the interaction of two qualia's that in their experience the person recognized together—then upon psychologically processing those sensations/experiences, as part of the processing, the cognitive make-up of the person will also experience the sensory and phenomenal transfer of their respective quotients of time and motion within the construct of how the qualia interacted within that person's experiential recognition. In this way, recognition, is the ordering agent of cause and effect.

In that way, all physical qualia will have the same functionality as do their physical counterparts in the material world, which then reflects into the consciousness of the person's experience and recognition. So, when we experience the "qualia that is collision" we also experience the time and motion interchange inherent within that qualia, i.e.; we <u>recognize</u> in the same way that the collision actually occurred and transferred time and motion in the <u>physical realm vantage point</u>.

(Also see #1 marked below for an explanation of how causation comes to be inherent in our thoughts and ideas).

Kant's solution in the Third Antinomy to the question whether freedom of the will is compatible with the universal necessity of causal law is to argue that there is one action that can be interpreted as free or as causally necessitated, depending on the standpoint one takes on it. He instructs us at the outset as to how to think about these standpoints. He reminds us of the doctrine of transcendental idealism he has already tried to establish: that appearances are not things in themselves, but merely law-governed empirical representations which therefore must have Gründe. These Gründe, in turn, are not themselves law-governed empirical representations. He now characterizes them as an intelligible cause of sensible action. So Gründe are intelligible rather than sensible, and themselves cause sensible action. If one switches Grunde to be qualia then I would agree with this. However, Kant does not mean qualia, and thus I do not agree.

Grund, for Kant, comprises the conceptual presuppositions of objective empirical knowledge, i.e. the logically necessary functions of thought established in the Table of Judgment; and that, according to Kant, these functions of thought yield highest-order explanatory first principles. These principles are rational ideas of an unconditioned condition that subsumes its series of empirical conditions. I do not agree – what he refers to here I say is purely cognitive. Also, it is somewhat contradictory in that he calls it a presupposition but also calls it empirically objective – it can't be both.

Kant claims that a Grund is an intelligible cause of certain appearances, he means to say at the very least that these empirical conditions (again – that is contradictory) are determined by a rational idea that is neither empirical, nor sensible, nor spatiotemporally external to the agent who conceives it.

But it is external. And besides – what he lists here which it is "not" – covers everything that something could be!!

He argues elsewhere that there are at least two ways in which a rational idea might determine (bestimmen) an empirical representation. First, it might fix its form; i.e. it might structure and specify that representation as an instantiation of the idea. So, to take an empirical analogue, my idea of a vacation cottage might specify the form of anything I identify as a vacation cottage as small, ranch style, and low-slung.

Thus, that would be a subjective idea and have no empirically oriented representation, subjectivity trumping empiricism. It seems to me that Kant gets circularly stuck in his Transcendental Idealism, which is ubiquitous throughout his ideas. I say it is circular because it ignores completely the hard problem, and thus gets stuck, round and round, within its own assumptions.

It is backwards – he's saying that the idea of the form or qualia constructs any identification of similar forms to be of that qualia. It is just the opposite – the experience of qualia determines our idea of that noumenon. This is why various shades of green are lumped together for the most part as simply green.

But second, a rational idea in itself might bring an empirical representation into existence. Just as my empirical idea of a vacation cottage causes me to build a vacation cottage, and so is the efficient cause of the vacation cottage I actually build, similarly, a highest-order rational idea considered as an intelligible cause might actually bring that of which it is an idea into existence, as when my idea of honor causes me to act honorably. In this second sense the idea is the efficient, i.e. precipitating cause of those empirical representations.

Here, the author is ascribing cause to a higher order rational <u>idea</u>, in this case "honor". But the concept of honor (or any concept) is born from early examples that combine with other examples to build a concept. Those "examples" are not of higher order thought. Those "examples" are from experience that we witness. We witness experiences with our Will (attention) attending to an external stimulus, often qualia (but not always – it can be a willful observation which does not entail targeted attention but rather entails receptive awareness). Being of the external, even though we have translated it to an encompassing concept (of the examples), the external experiences are the causation and the conceptualization of it, which happens eventually, is the effect.

Therefore, an idea cannot be a cause – it is in actuality an effect. This also speaks of the concept that many quale's, exerting their influence over time on our learning process, can add up to an accumulated cause that is not from one cause by itself, but from an accumulation of inherent causes combined into a certain configuration (concept). This is possible from the standpoint that causation and effect retain their quantities within an object (and thus that object's quale) and the accumulated quantity respectively will result in an overall cause. Mathematically it would look like the following:

1/X + (1/(X + 1)) + (1/(X + 2)) + (1/(X + 3)) = 100% X, or Percent of Cause 1 Plus Percent of Cause 2 Plus Percent of Cause 3 = Combined 100% Cause At least he goes on to say: But this does not explain how the intelligible world could be the efficient cause of the sensible world. Nor does it fully explain the sense in which the noumenal subject (the idea) could be the Grund of the empirical subject. In these cases there is more involved than solely the structuring and subsumption of an empirical conception under a highest-order rational one. All of which contradicts what is previously contended and finally addresses the hard problem, which is the whole point of all this.

All three of Kant's highest-order rational ideas determine their instances in the formal sense: we each must regard our individual souls as immortal, irrespective of personality; our actions as free, irrespective of their particular goals; and every representation of God (Energy) as representing an omnipotent being (Thing). This I can agree with.

Kant asks: How can a mere idea – an abstract conceptual entity – precipitate physical behavior? (i.e.; Be a Cause)

In the sense that the idea was caused by an external source (see discussion above) then it can "carry with it" the causative quotient of the original cause that got transferred to the idea. Therefore, the phenomenal (in this case a rational idea) can take upon itself the physical aspect of time or motion, i.e.; causation or effect, in relational proportions to the original progeniture cause/effect. The idea is therefore an effect from previous empirical objects or qualia, and a cause of behavior. This is not strange to have something as an effect of one thing be a cause of another – that is the nature of continued motion.

This is a very key principle because it results in the theory that non-physical, internal psychological cognitions can accrue cause and effect and this therefore explains causation and effect in terms of the phenomenal, psychological, neuronal induced effects and judgements.

Kant thinks the sensory matter of appearances is the result of the effect of things in themselves on our sensibility; and these are neither empirical nor sensible, nor necessarily external to the agent, either. By contrast with rational ideas, it seems that these sorts of things in themselves causally affect our sensibility, not our reason. They obviously effect our reason according to our above theory.

So, things in themselves, it seems, can be of two sorts. Some can causally affect sensibility and thereby give rise to the sensory matter of appearance; let us call these metaphysical Gründe. But others, it seems, can causally affect reason, and both effect human actions and specify their form; let us call these conceptual Gründe. Whereas metaphysical Gründe are purely efficient causes, it seems that conceptual Gründe may be both efficient and formal causes.

I agree with the second point "Conceptual Grunde" but not the first "Metaphysical Grunde" – that is because the first ascribes effect only upon sensory appearance, but by using the term "appearance" it connotates something removed from reality by cognitive psychology.

He now defends three hypotheses conjointly: (A) denotation: the one-way relation of conceptual to metaphysical Gründe is one of denotation. According to (A), metaphysical Gründe would be what the concepts constitutive of conceptual Gründe refer to. So (A) presupposes that metaphysical Gründe

exist. (B) causation: the one-way relation of metaphysical to conceptual Gründe is a causal one. (B) implies that the actual unconditioned conditions to which the ideas of reason refer – God, free agency, the immortal soul – are in themselves formal and efficient causes that affect our sensibility and ultimately generate our concepts of them. In a similar manner, those concepts themselves as formal and efficient causes affect our intellect and motivate action guided by them. (C) inference: the one-way relation of (A) to (B) is inferential. (C) says that if the one-way relation of conceptual to metaphysical Gründe is one of denotation, then the one-way relation of metaphysical to conceptual Gründe is one of causation. (C) instantiates the more general rule that if a term or concept T succeeds in denoting an object or state of affairs O within a subject S's conceptual scheme (and I do think there are conceptual schemes), then O plays a causal role in S's grasp of T.

I agree with (B); it is metaphysical to conceptual one way and it is the actual unconditioned condition (that of cause before effect) as evidenced by the natural state of energy a priori (as posited previously by me).

Kant also might have argued that I must conceive myself as spatiotemporally transcendent in the following respects: first, in my ability to grasp the meaning of any particular spatiotemporal situation I am in, in general and universal terms that transcend it; second, in my ability to remove myself in thought from that particular spatiotemporal situation, and imagine myself in some other one; third, in my ability to enter a realm of abstract thought in which spatiotemporal constraints fall away entirely; and fourth, in my logical inability to conceive the world as persisting without me. I have argued elsewhere that each of these aspects of our rational self-conceptions as immortal souls is a consequence of the transcendental and synthetic status of the "I think" as the "vehicle of all concepts."

This is all very "nice", however, it once again (as it does throughout the ages) ascribe an individuality to the immortal soul. That is something that is patently false and is borne of our ego. My belief is that the concept of, "I will carry on after death" should be simply replaced with, "We or it will carry on after my death". The individual does not endure, but the universal, which ultimately makes up an individual, does endure.

Now suppose denotation to hold, i.e. that this necessary self-conception was a conceptual Grund that denoted a metaphysical Grund, namely my actual immortal soul. According to inference, causation would then also hold: my actual immortal soul would then causally affect my sensibility, just as ontologically independent objects do. First, my actual immortal soul would efficiently cause in me sensible representations of its properties, i.e. the transient mental events that in fact constitute my empirical consciousness:

Yes, if you call that empirical consciousness qualia. But he goes on to say that consciousness entails ... thoughts, emotions, memories, concepts, deliberations, etc., which I take myself to be experience. Which are not of qualia and are not of an immortal soul's effects upon a person (as he contends). The soul's effect upon a person is the ability to experience. Since the soul is "all qualia", and qualia is the cause of experience, then the soul is the base cause of experience.

Therefore, my immortal soul would affect my sensibility as a formal cause, by synthesizing its representations into a unified whole (cf. B 153, B 156-157, fn.). So we might think of an immortal soul as a kind of magnetic field matrix function of some sort (whether strong, weak, electromagnetic, or gravitational is – you will pardon the pun – immaterial for our purposes) that systematically condenses

and organizes the sensible data received by certain sentient material objects, namely human beings. I do not claim that this is what Kant actually meant at A 78/B 103, but I also would not deny that he might have.

Interesting theory in that it attempts to give a quantum physical constituency to what qualia is and where it comes from (some type of field of force). He also posits that: My immortal soul is what in fact leads me (causes) to the rational Idea of my immortal soul. He bases this on the concept that the immortal soul causes higher order thought and that that thought is the thought that I am an immortal soul — a circular unity. The problem is that the immortal soul is in actuality the universal soul and the universal soul does not cause that thought, except in the sense that we spoke of above about causation being carried forward into thought.

Causation may very well be existent in thought, but the actual, logical, neuron induced thought itself is not an outcome (effect) of the universal qualia. Qualia does not engender thought concepts itself — our attended recognition does, and as such, is a judgement caused by that recognition. But do not mistake the recognition of qualia to be a judgmental aspect of qualia. Qualia does not carry with it any information — only direct, brute experience. It is our once removed recognition that causes information to be produced cognitively, and as such, the causation might be traced back to the qualia, but the effect has been removed. All cause and effect must co-exist and be 100%. So, the effect within qualia is not that of information — it rather is that of brute experience.

It is my interpretation of the recognition of that experience that might possibly result in the idea that I am an immortal soul – but the cause was recognition and the effect was to produce information cognitively. The cause of that particular concept or thought was not inherent in the universal soul (the immortal soul).

The causation hypothesis, when applied to the immortal soul as an efficient and formal cause of this synthetic unity, would explain Kant's 11op. cit. Note 5. Kant's Intelligible Standpoint on Action 8 © Adrian Piper Research Archive Foundation Berlin cryptic description of synthetic unity as the effect of a blind but indispensable function of the soul. Causation thereby would explain the possibility of empirical knowledge. But by definition this hypothesis could not itself be the object of it.

Which is what we are saying above that universal consciousness does not cause our cognitive concept of us as an immortal soul – not directly.

Next consider a different kind of case. Suppose, by analogy, that, contrary to fact, the rational idea of a unified force field was for Kant an unconditioned condition that explained the lower-order principles, hypotheses, and observed physical phenomena of objects and events. This idea would be a formal cause of our identification of that phenomena, in that our idea of it would structure our perception of them: nothing inexplicable in terms of it would be among them. And the formulation of the theory of a unified force field as a highest-order rational concept would assume the truth of denotation, i.e. that it referred to what really existed; that it was a true explanation of all of those phenomena, including our empirical selves. If in fact a unified force field really did exist, this would ensure that the rational idea of a unified force field actually had application, that it succeeded in denoting what it purported to denote.

Not so – by the same exact argument I presented above about the immortal soul causing the thought of an immortal soul. This is the same logic. It also credits cognition only with that effect and ascribes nothing to qualia.

The concept of the unified force field itself implies the truth of inference, and so of causation: the actual unified force field would be, by hypothesis, the efficient cause of the physical phenomena of objects and events we observe. That force field would also formally structure that phenomena. But since we ourselves, as empirical human beings, are among the physical phenomena it structured, it would also indirectly formally structure our cognitive ability to investigate and grasp it as an explanatory hypothesis. In this case, this rational idea would be a conceptual Grund that denoted a metaphysical Grund – and, moreover, explained why the metaphysical Grund, i.e. the actual unified force field – efficiently caused discrete physical phenomena to appear to us as they did.

This goes to the concept that "what we conceive of creates that which we conceive". This is simply the above logic reversed and is thus false as a concept or truth.

The actual unified force field would be what in fact led me to the idea of a unified force field.

Only to the idea of one – but not to a direct experience of one and not to an explanation of one. This goes to the concept that we can never directly <u>know</u> reality (a very quantum concept) – which I actually agree with as far as that goes. He goes on to admit (and thus agree with me) that: "But by definition it could not itself be the object of it".

In particular, the unconditioned rational Idea of a free agent as a conceptual Grund has the following empirically ascertainable effects on empirical action. Consider first its role as a formal cause. The Idea of free agency formally causes me to conceive my own behavior in a way that is consistent with this Idea: as self-caused, self-ascribed, intentional, and uncompelled by immediate external sensible causes. Maxims, i.e. action descriptions14 satisfy these conditions. And rational human agents must conceive themselves and others in accordance with this Idea of Reason, because so doing is necessary for having unified experience (A 651/B 679).15 So any behavior conceived as an action must conform to this Idea of rational free agency, on pain of conceptual incoherence.

This is so untrue. Even if we take this argument at face value to be so, it ascribes to us a pure, never wrong, never incoherent ability to our thoughts and ideas – which is patently untrue – at base, we are an unsure, confused at times and contradictory lot. Pure, never incorrect logic is quite rare and in the majority of cases is ascribed as coming from without us, as <u>revelation</u>.

Free Will (Agency in Kant's language), though existing in the sense that we can control our choices by using it, nonetheless is very connected and influenced by external stimulus. Our Will is often "captured" by what seems to be either a fleeting fancy or diversion, or in other cases by a demanding and important one. In either case, the Will is being "summoned" seemingly from an external agent or stimulus. In that sense, though you wouldn't call the Will a slave to the external and not in control, but you also wouldn't necessarily call that process one of self-contained freedom. The Will is interactive with the phenomenal and the external, and as such, does not inure freedom to our psyche.

Kant contends: "[T]o every rational being possessed of a will we must also lend the idea of freedom as the only one under which he acts. ... But we cannot possibly think a reason, which consciously in

regard to its judgments receives guidance from elsewhere. For in that case the subject would ascribe the determination of his power of judgment not to his reason, but rather to an impulsion. Reason must view itself as author of its principles, independently of alien influences." (Ak. 448)

But Will, alone, without bridging to reality (or qualia) is impotent and subject to falseness. Will is simply targeted attention. That target can be a false thing, and certainly can be an externally triggered thing (unlike what Kant contends above). Kant says Will must presuppose its freedom, but ... many a will has gone astray. Witness the Will of Hitler. Was his Will free? Only in the sense that it could seek evil and decoherence to reality and reality's physical wavelike make-up, that itself can be considered as always "efficient" and itself" free". But by not cohering to this efficient wave of energy, by definition, Hitler's Will did not cohere to freedom, rather to decoherent evil and could even be considered as enslaved. Hitler wasn't free, he was a slave to thoughts born of fear of the external world, and as such he was a slave to that world. He was able to impose the use of his Will, but not control its allegiance. True freedom entails coherence with the efficient path of energy. All other decoherent "paths" keep us tied to a series of mistaken, karma inducing actions that we are not able to get out of, and thus are not free in that sense.

Free action – transcendentally free action – just is action efficiently caused by the agent's own unconditioned rational ideas, rather than by external empirical conditions. An agent is transcendentally free if and only if her actions are caused by rationally unconditioned Ideas.

No - it is the efficient coherence to external conditions that defines free action – all decoherent actions are not free by contra-distinction to the free coherent reality and thus actions. To give an example of how Kant is wrong here; take someone whose "rational" idea is to hurt herself (bulimia, cutting, etc.), born of a rational logic as reacting to an emotional state), is she then performing a free action, or is she a slave to her incorrect and hurtful rational thinking?

The Idea of free action is an unconditioned rational idea. If I have this Idea, and this Idea efficiently causes me to act rationally and treat others rationally, then I must be, in myself, actually free; and the Idea of free action that governs my behavior also denotes it. Hence denotation is confirmed by the efficacy of the Idea of free action in causing me to act freely.

This statement is a little better in that it fully agrees with my theory that it is the coherence with the most efficient path of energy that denotes freedom, morality, the good, etc. However, this statement does not follow well with the previous one and it still has the problem of rationally intact but irrational effects.

Again, it is actual free action that leads me to the rational idea of free action that denotes it. This is no more metaphysically suspect than the rational idea of a unified force field denoting an actual unified force field.

Again – refuted by the argument(s) against immortal soul and force field self-consciousness that we set out above. They are circular arguments.

We ordinarily refer to such intentional behavioral regularities as dispositions, and I shall follow that convention. I shall say that a free agent has a metaphysical predisposition to construct a vacation

cottage, or, respectively, to virtue, if the idea of a vacation cottage, or virtue, causes her to realize these ideas in action.

He is stating why a certain idea causes a certain action and says that it does so because that precipitated action (effect) realizes the cause. This indicates that effects are representative of causes. Interesting theory because, as I state, cause and effect, time and motion – are the same thing from different vantage points. He is thus saying this in another way (which I like), however, when he defines the effect in terms of behavioral action, he in actuality is separating the equality of cause and effect. This is true because causation is not a behavioral thing. Causation is a phenomenal, brute and foundational thing born of energy (time and motion's aspect of energy), while behavior is an effect of an impulse born of cognition or ideas and is thus removed from being equal to a metaphysical cause.

On the Intellectual Standpoint

He equates the distinction between phenomena and noumena (a thing in itself), first, with that between the world of the senses and that of the understanding (Verstandeswelt), and second, with that between the sensible and the intelligible world.

Kant has already explained that abstracting the categories of the understanding from sensibility yields the logical forms of judgment; and he later explains that extending them beyond the purview of sensibility yields ideas and inferences of reason. So, the world of pure understanding.

For if the senses represent to us something merely as it appears, this something must also be in itself a thing, and an object of a non-sensible intuition, i.e. of the understanding.

First, he says it is a "sense-oriented thing" but then says it's an object of understanding because the senses represent that thing. Good for as far as that seems, however, if the sense recognition is more than simple "appearance", if it is qualia and brute, bridged from the Will interacting with reality, then is it really just an "appearance"?

That is, a cognition must be possible in which no sensibility is to be found, and which alone has absolutely objective reality, through which, namely, objects are represented to us as they are ...

And here he underlines what I have just said – that a cognition (recognition) could have absolute objective reality. He seems to contradict himself.

This passage, which Kant struck from the B Edition, makes a number of important points. First of all, he thinks that if it were possible to intuit objects through the intellect alone, i.e. through reason, this mode of access would yield knowledge of things as they are in themselves which was absolutely objective. In this Kant follows Plato's account of knowledge in the Republic, where the world of forms is a higher and truer reality, accessible only through trained intellectual discrimination.

I won't even go into how wrong Plato was. I note here however that Kant eliminated this opinion from his 2^{nd} edition, thus sticking to the original incorrect stand from above. Intellectualness does not create reality, just the opposite.

Correspondingly, particularly in the Anticipations of Perception, he valorized the senses as the touchstone of the real. In deleted passage (2) from the discussion of Phenomena and Noumena, by contrast, the senses deceive us as to the true nature of reality, just as they do for Descartes. Only through the operations of the intellect do we discern the nature of things as they are in themselves.

It's just the opposite though. Our intellect always has the ability to deceive us and has throughout the ages.

Intellectual intuition through which to apprehend the nature of things in themselves, this faculty would not provide us with the open window onto the world that naive realism requires. Although it would represent things as they are, it would still represent them mediately. In this way intellectual intuition would be different from sensible intuition, which brings us into unmediated relation with objects. The reason for the difference is that intellectual intuition would be a kind of knowledge (Wissen), and therefore inherently representational, whereas sensible intuition is merely a kind of acquaintance (Kennen), which is not.

This is not so if you subscribe to the concept that "sense" is still removed one step from reality. It is only the direct interaction between Will and Qualia that eliminates any mediation. In analyzing that statement which I just made, one must not fall into the trap of considering the Will as a vehicle for intellectual understanding – the Will, in the case of bridging to reality through targeted attention, is not intellectual or sensible, it is an unmediated connection (coherence) with reality. This is because qualia has the trait of <u>causation</u> – that is; it causes the brute reality of itself to be <u>recognized</u> by the attention (the Will). It is unmediated because, as Rilke said; "The Will stands stupefied". That is: the "bridge" is the Will, naked of any of its intellectual powers – it is power without prejudice. Qualia's invocation is direct.

The reality behind qualia (electromagnetic waves, noumenon, etc.) may be once removed and mediated between itself and the physical reality of the object that causes qualia, but the quality itself is a direct one to one correlation and coherence. The coherence makes it exactly equal. So, when the Will (attention) coheres to the rendition of qualia – they are duplicates. In this sense, qualia can be thought of the way we think of DNA or RNA – providing an exact duplicate of itself. Another way of saying this is that the quality that we see as greenness is the same greenness that is the qualia, there is no difference or mediating agent. It is a perfect mirror.

A third important point in passage (2) is Kant's characterization of the intelligible world as an object of thought in the mind, and so one that employs pure understanding far more nobly than does the sensible world. This distances him somewhat from a Platonic metaphysical realm of abstract objects.

Here, he puts the mind ahead and more directly experiencing true reality over and above that of the senses and ultimately qualia. I don't know how he could think that. In this case, Plato, is way in front of Kant. Also, the use of the word "nobly" is way too subjective.

Kant's intelligible world is a mental world of conceptual objects fashioned by the intellect in accordance with the demands of reason; conceptual objects that represent actual states of affairs as they really are.

Ugh!

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Now in the B Edition Kant finds doctrinal reason to repudiate the possibility of intellectual intuition (B 313-314; also see B 68, 71-73, 159), and with it the positive concept of noumena here described.

I guess in that sense he saves himself!

Certainly, we must observe Kant's stated restrictions on his technical use of the term "knowledge" as more or less interchangeable with "experience," and as therefore requiring the synthesis of sensible intuition under the categories. This implies the rejection of the first claim above, that the intellection (or intuition) of objects as they are in themselves could yield absolutely objective knowledge.

In other words – he believes in the final rendition of his ideas here, that experience is removed from reality and still needs some sort of translational objectiveness (synthesis of sensible intuition as he puts it) in order to yield absolute objective reality – with which I agree with that sentiment. However, in no way do I agree with the interchangeableness of knowledge with experience. He is calling the knowledge of the experience, experience itself, again – a circular logic.

But the intelligible world of rational ideas in the mind may nevertheless provide a noble use of the pure understanding. And even though these rational concepts (Begriffe) cannot, by definition, yield empirical knowledge, they can still yield us representations that give us theoretical and explanatory insight into things as they are. These conceptual representations can make empirical knowledge comprehensive and coherent, and in so doing, enable us to grasp (begreifen) the deeper reality that lies behind the sensible appearances. That is, we begreifen this deeper reality through Begriffe. This is not full-fledged empirical knowledge (Erfahrung, Erkenntnis); but it is not nothing, either. It is in fact no more mysterious or different than what any explanatory hypothesis tries to achieve.

That's good as far as it goes – but it seems like an apology for his previous ideas that contradict that.

So only the concepts and ideas we generate through understanding and reason situate us in this world. On this conceptual interpretation of the intelligible standpoint, that we cannot know (erfahren) the contents of the intelligible world follows by definition of what the intelligible world is. It is a realm of purely conceptual activity, distinct from sensibility. We can grasp (begreifen) its contents by thinking, conceiving, and identifying them. But since 18"[I]n regard to what may be in [us] of pure activity (which reaches consciousness not through affection of the senses, but rather without mediation) [we] must class [ourselves] in the intellectual world, with which [we have] no further familiarity (kennen)." (Ak. 451) Kant's Intelligible Standpoint on Action 17 © Adrian Piper Research Archive Foundation Berlin knowledge in Kant's technical sense requires the contribution of sensibility, it follows that we cannot know them.

Here he considers knowledge as lacking "really knowing" because it lacks sensory recognition of reality. But we maintain that when you combine cognition (understanding) with direct experience, we indeed can "know" a thing, or at least at a minimum we can know the quality of a thing, and the quality of a thing is its nature. Thus, we know green intimately and directly. This combination of understanding (cognized recognition) and brute experience is what allows us to comprehend and navigate the world and may very well be the evolutionary and otherwise "purpose" of consciousness.

The last sentence of passage (3) further develops the claims Kant has already made in Paragraphs 24 and 25 of the B Deduction: that synthetic understanding is spontaneous and active, and that it not only formally specifies the passive subject's form of sensibility but also causally determines it.

I believe that here he is actually in effect describing qualia recognition (assuming that his use of the word "synthetic" means direct understanding – knowing it for what it is)). But to claim that understanding determines experience is backwards.

In case you haven't noticed, most of my criticisms of Kant's views are that they are backwards. This makes sense (that we would be in opposite camps) simply because on one hand, Kant, comes from a base belief that the intellect is the omnipotent force behind the reality within us, while I believe that the phenomenal external universalness is such a force, with intellect a secondary effect. These stances would lead each of us to opposite conclusions.

Here Kant adds that it is reason that shapes the understanding in this manner. In the Groundwork he adds, further, that reason is even more purely spontaneous than understanding. Understanding, although active and spontaneous to some degree, is limited to the production of those concepts that subsume sensible representations under rules and so unify consciousness. Reason, by contrast, produces ideas that transcend sensibility and thereby demarcate the limits of understanding itself.

This is an amazing statement, for he is in effect saying that "reason" is superior to direct experience in that it can expand our relationship to objective reality over and beyond "mere" direct experience by adding to that experience judgements, reason, wisdom, etc. However, here again, Kant supposes "perfect" understanding without error or cloudiness – this is something we do not have the full ability to produce. Again, when we do produce that level of understanding, wisdom or cognition – we consider it "revelation" and coming from an outside agency. So, what Kant says is theoretically possible, but pragmatically does not exist (except in cases of revelation).

I believe that "revelation" itself is nothing more than the awe experienced upon a direct bridged recognition of something entirely new. I further believe that revelation from understanding or cognition is not true revelation but is rather awe of an intellectually new idea that produces the reaction of truth (the reaction of truth ironically is a qualia effect).

It is then because we exercise our rational faculties in spontaneous intellectual activity that, on Kant's view, we must regard ourselves as free, by definition (Ak. 448). That is, if it is reason we are exercising, then by definition we must regard that activity as spontaneous, original, and uncoerced by external influences. We express our intelligible character and situate ourselves in the intelligible world, by engaging our minds and intellects in the activity of rational thought.

Once again, he assumes a priori an ability to have perfect understanding (quite a Platonic like view ironically).

But the propositional content of unconditioned rational ideas – the ideas in themselves, so to speak – are not the kind of entity that can be the result of empirical causes, any more than the law of noncontradiction itself could be. They are universally valid, Kant's Intelligible Standpoint on Action 18 © Adrian Piper Research Archive Foundation Berlin abstract, spatiotemporally transcendent

conceptual objects that exist independently of us; and that we therefore have temporal occasion to discover, rather than to invent.

Interesting concept that I do not agree with. The author contends that "ideas" have object-like properties in that they exist already waiting to be discovered. He also is saying that they do not flow from sensory experience (qualia). Again, a Platonic slant to it in that he points to "pure" ideas that represent truth, etc. waiting "out there" to be discovered by us. I believe that all ideas are built up cognitively, and although they certainly can reflect representative wisdom and understanding of experience, they are not experience itself – "truth" being a direct experience, not an intellectual one. Yes, reality is out there to be discovered – but discovered through direct experience of qualia not through conception of ideas. When we do conceive of something that is a truth, we ascribe the credit for it to our intellect and cognition, however, that is simply because we do not have access (intellectually) to the entire path of causes and effects that led to that cognition.

On Spatiotemporal Transcendence

Kant states: Pure reason, as Kant points out, is not subject to the form of time (or place).

Note that he is specifically alluding pure reason to the "higher concepts" such as God, freedom, immortality, etc. I still have problems with the concept of "pure reason" for it pre-supposes intellectual truth, and I believe "truth" to be an effect of reality and cannot be fully recognized and experienced intellectually.

And then we "lose ourselves" in abstract thought, and cease to experience the passage of time. At that temporal location and for that temporal duration in which we are engaged in reasoning with abstract concepts, the awareness of spatiotemporal location, duration, and individuation – and so the awareness of the sense of empirical selfhood, and of personal identity – fall away. With them disappear the necessary conditions for empirical knowledge (I would say that this state is the exact conditions for empirical knowledge. Perfect bridging with no mis-represented cognitions to be in the way of one to one coherence with qualia, with Universal Consciousness). What remains is conscious, active, impersonal intellection, moving purposefully through a conceptual terrain without concrete signposts and mapped only by the laws of reason. Thus, our intelligible character consists in the metaphysical predisposition to regard empirical events as instantiations of abstract universal concepts and principles, and so to transcend in abstract thought the personalizing and limiting constraints of time and place.

This, from the author, is purely speculative. There are several problems with this reasoning; he claims that a sense of selfhood and other spatiotemporal characteristics are necessary for empirical knowledge (I say that simple, brute experience, recognized, is what is necessary); and he contends in the last sentence that time and place are limiting factors. I say they are defining factors (time and motion being causation) and that they are direct dimensions of reality. The fact that we "lose" ourselves in thought does not eliminate the constant barrage of effects (unconscious sense experience) born of time and place.

For example, thinking about what to cook for dinner tonight may remove me in thought from my actual spatiotemporal location. But only by transporting me to a different one which I plan to effect.

So, I conceive both locations from the empirical or sensible standpoint; planning the future does not transport me to the intelligible world.

This goes to the concept of future as it relates to time and place (space-time). The future, in my view, is ephemeral and non-existent. What he is really talking about is planning for the future. Planning has no spatiotemporal characteristic; it is purely cognitive or reflexive. Though, in that sense I agree that there is no spatiotemporal existence since I believe that the future does not exist.

Kant's view that the moral worth of an action has nothing to do with its results follows naturally from his conception of the sensible standpoint. All such results, and all such hypothetical reasoning about empirical action and its results, concern merely empirical events and their spatiotemporal interactions. Since reasoning with hypothetical imperatives involves reasoning about events at one spatiotemporal location with regard to results they are intended to cause at a future one, it fails to disentangle the agent from the sensible web of spatiotemporal interactions in which she is embedded. The imprisoning character of the empirical world thus cannot be explained merely by its thoroughgoing causal determination. For we have seen that as noumenally free agents we are also causally determined – intellectually, by reason, to deliberate in accordance with its laws and initiate empirical actions that carry them out. Rather, the sensible empirical world constricts us because it individuates, locates, and plants us in a spatiotemporal order which, because it need bear no relationship whatsoever to "the rule and order of rationality" (A 550/B 578) – i.e. the order of abstract objects of thought we denote through concepts, and the systematic logical and conceptual relationships we discover among them – offends against our deepest metaphysical disposition: the disposition to rationality. Moral worth requires the intellectual transcendence of spatiotemporality - i.e. transcendental freedom – because only then can we exercise without arbitrary constraints the capacities of rationality and intellection that distinguish us from other sentient creatures.

This is diametrically the opposite of what I believe. I believe it is exactly our "moral" coherence (beliefs and actions) with the external world of energy that determines morality. Energy is manifestly the ultimate form of efficiency and I correlate efficiency with the absolute value of the good and of morality. If the path taken is the most efficient one, then it avoids unnecessary, diversionary and mistaken routes to be taken – this defines what is good (relationally) and what is moral (effectually). Such is the same with the most efficient path of energy, coherence to which equates to goodness and morality. The most efficient path of energy are those wave probabilities that do not cause further discordant waves – they are the most efficient path. Our <u>subjective</u> concept of the good and the moral are objectively defined by the most efficient path of energy.

I have a very different take on this subject of morality being limited by reality. Kant thinks that morality is of a "higher level" than reality is – from an intellectual or rational level, self-created (we've all seen what that has gotten us!). But I see reality as the highest moral existence. I define this to be true due to the "most efficient path of energy". If that is so then it is the coherence to reality that produces the most moral effect, not an intellectually produced concept. Plato comes close to this in arguing that there is a pure rational morality which we strive for and approximate through reason. My theory places the definition of morality as an exact rendering of reality, while Kant's places the definition of morality as an exact rendering which, in my view, can't help but be subjective, not pure and is possibly mistaken. For more on morality see "Mirrors".

Thinking about whether to share my dinner with the indigent gets me underway. For it requires me to subsume the events of an envisioned spatiotemporal location under the abstract, spatiotemporally transcendent principle of helping the needy – itself an expression of the good will. By subsuming the action's maxim under the spatiotemporally transcendent idea of the good will, I lift myself in thought beyond the spatiotemporal web in which I am embedded, and thereby secure my transcendental freedom. Only from this spatiotemporally transcendent perspective can intellectual causality function.

Nicely, though subjectively and judgmentally said. But where is the absolute morality that exists from helping the indigent? It leaves us in a subjective, judgmentally defining situation that may or may not be an absolute. Who is to judge? And if one says "God is to judge" then one is deciding what he or she determines that God thinks!

My concept of morality removes the subjective aspect of it and places its authority squarely in the lap of how the universe most efficiently operates. Why is that necessarily an absolute morality? Simply because it matches (coherently) the most efficient flow of energy (wave shape). Inefficient energy flow (decoherence) causes the universal effects to be chaotic, disorganized and in many cases destructive.

For example, in the indigent and needy example that he gives above — it just so happens that the efficient flow of energy goes along (is coherent with) helping the needy. The "why" though is different than his subjective opinion of what is moral. While his "why" had to do with a subjective, emotionally felt cause begotten from best intentions, the efficient use of energy works simply because the non-efficient case will perpetuate the needy, which in turn will perpetuate the more inefficient need and use of energy to deal with the consequences of neediness, and so on and so on — a very inefficient process. The help of the indigent will not perpetuate and hopefully eventually will do away with the indigent condition and allow energy to flow onward, not trapped in a closed loop of inefficient indigency and the consequential problems and further use of energy that indigency brings. Notice that the most efficient use of energy is the one that produces the least consequences or removes them. In my system of thinking, it is the outcome (effect) that reflects the morality, while in his way of thinking it is the action itself (not the effect) that defines and represents morality itself.

So, in this case (indigency) both approaches result in the same action, but efficiency is objective and an absolute. Many other moral choices, if subjectively chosen, can lead to the inefficient flow of energy despite the person's best intentions. Why rely on intellect when one can be assured through reality? Remember, evil people do not think of themselves as immoral – that tells you a lot!

By defining morality as a non-subjective efficient characteristic (even if that definition is random) places the measure of morality on firm and consistent ground. Therefore, if morality is defined to be objective, this allows it to have a grounding and a measurement base that can be judged non-subjectively and does not conflict with anything that is of reality. We need not know exactly what reality demands of us (morally), we need only know how to be in conjunction (coherence) with reality and then we can be assured that we are acting in accord with objective principles and characteristics of the good and the moral. Otherwise – it is all up for grabs with mistakes and chaos and evil, etc.

Coming to the knowledge of what the most efficient path constitutes is the difficult part and is fraught with possible error and misled mistakes. However, if we cohere with the universal, through a

suspended and connected (bridged) Will, we will be assured of coherence with the good and the moral. One way to do this is through pure meditation which connects the Will to universal qualia.

By contrast, by inferring that meeting next month's payment is the right thing to do, I take the intelligible standpoint on that same action. For I subsume its maxim under the spatiotemporally transcendent concept of rightness, and so identify it as universalizable.

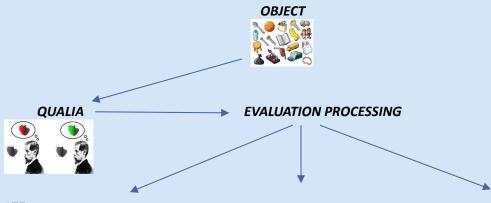
But it is <u>his</u> subjective opinion of what is universalizable. In my schemata, universality is automatically and non-subjectively defined. Remember that in the subjective world; one person's morality is another's evil (thus war!).

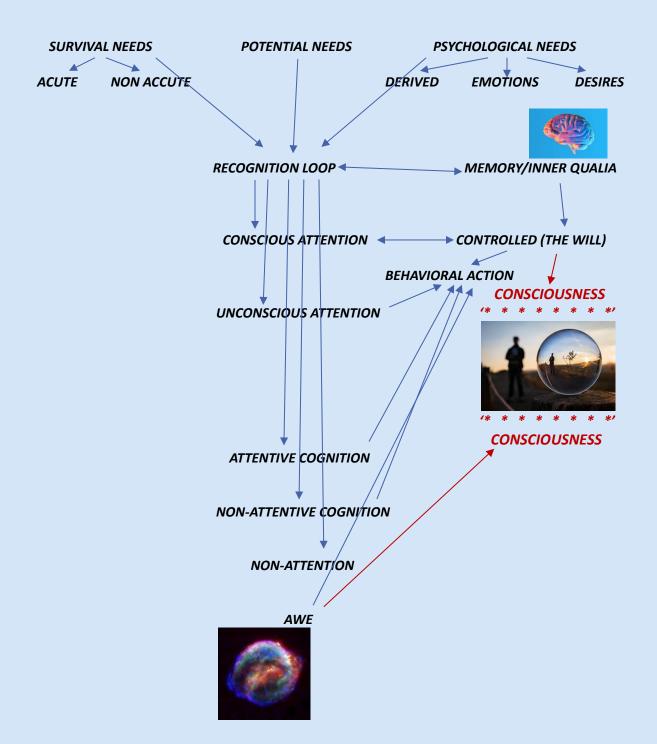
Now recall from the conclusion to Section II Kant's definition of the character of an efficient cause as that rule-governed causal relationship between the content of the idea one has and the action one performs in its service, such that the mental occurrence of the idea precipitates the corresponding appropriate action. I note this passage simply because I find it telling that Kant uses the concept of "efficiency" to judge the rightness of an action.

This ends my analysis of selected ideas of Kant. In many cases I agree with Kant, but on the whole; Kant's reliance on the intellect as the true reality is misled in my opinion. It's my belief that if Kant knew of and subscribed to the concept of qualia, he would change many of his theories and constructs.

On the following pages are reprints of the graphs displayed within this book.

THE ROAD TO CONSCIOUSNESS

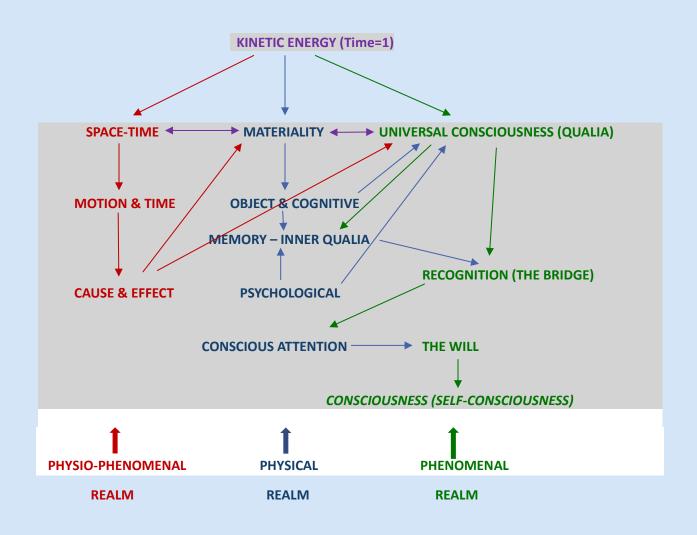




The following chart depicts the Flow of Energy and Consciousness:

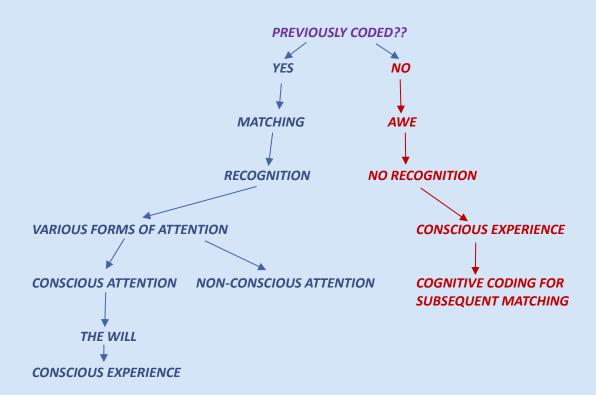
THE FLOW OF ENERGY

POTENTIAL ENERGY & FLUCTUATION (Time=0)



PHENOMENOLOGICAL PROCESSING





A SIMPLE PROOF OF CONSCIOUSNESS'S DERIVATION FROM ENERGY

If you could break down a bit of information and could then corelate a single bit to how much brain energy is used when evaluating, receiving that bit of information, and if you could universalize that measurement, then you could then measure if there is left over energy, not used for the pure information processing. That left over energy would then be the energy used for consciousness.

This would be like knowing how much energy it takes a computer to absorb one bit of information. This would be universal to any like computer. If you then fed the computer one bit of information and there was energy not used for processing, that is; left over energy, then that left over energy that was used up, but not used up for processing, would be accredited to something else. For a "like" human brain, that something else would be that the energy was used for conscious awareness.

One method for doing this would be to render a person unconscious and see how much energy was expended by the unconscious brain when a specific amount of information was transmitted to it. Then feed that same exact information to that person in various states of wakefulness, ending in fully awake and fully conscious. See if there was a corelated progressive left over amount of energy as each higher state of wakefulness was achieved. If the data showed a marked increase in energy usage, then that extra usage could be attributed to consciousness.

Fully Unconscious 100 watts used Additional Used – 0
Wakeful State #1 110 watts used Additional Used – 10
Wakeful State #2 120 watts used Additional Used – 20
Fully Awake 130 watts used Additional Used – 30

Correlation: 10 watts per state

Full Consciousness uses: 30 watts or 23% is attributed to consciousness (30/130)

You could then evaluate different types of information to see how much consciousness was involved with them. This could range from complex information to emotions. In the end you could "map" out consciousness. You could also use this when inventing artificial intelligence. Most importantly though is that it proves that consciousness is a derivation of energy as I have repeatedly stressed in this paper. One could associate a certain percentage of energy derivation to consciousness and the rest to materiality.