**ON THE DEVELOPMENT OF A THEORY OF CONSCIOUSNESS**

**In order to understand and derive meaning from this treatise of extractions from David Chalmers’ book “In search of a fundamental theory of consciousness” which is utilized to highlight and explain our particular theory of consciousness, one needs a certain amount of background information about our theory.**

**We call our theory, “The consciousness of energy” for a rightful reason. That has to do with the intimate relationship between energy and consciousness. To understand this relationship, it is necessary to go into the mysterious make-up of energy.**

**The first concept that needs to be put forward is that everything in the universe is made up from energy. Energy is the original entity in the universe and came to be existent through the interaction of potential energy (which always existed) and geometric effects. When potential energy combined with the shape of space, it manifested in the form of kinetic energy and the universe was born.**

**These concepts are born out in detail in our treatise “Mirrors” and can more fully be studied and comprehended there. For now, the important take away is that everything in the universe is made from energy.**

**We are all familiar with the famous E=MC squared formula which demonstrates the equality of mass and energy. Mass, or physicality and materiality, comes from energy, they are equal. However, there are two other dimensions that are born of energy. They are; Consciousness and Space-Time. These dimensions, along with materiality make up everything in the universe.**

**Consciousness is a special case simply because of the fact that it is not physical, it is phenomenological. We do not usually think of the phenomenal as associated with an entity (in this case, energy). We think of the phenomenal as ethereal and even question its existence. Yet we suspect there is something there because we actually experience consciousness. It is hard to reject the existence of something you are so intimately and constantly in touch with.**

**What is consciousness though? There are many versions to this answer. Some are: The self, experience, the quality of sensation, sensation itself, that which knows, self-awareness. These are just some of the nomenclatures that are used to denote consciousness. For our purposes we will use two concepts; Experience and Qualia.**

**Qualia is a key concept to comprehend. It is that which is the quality of our sensations. The color green is a good example. Although we can trace the color green from the surface of an object (like grass) through our retina and into our visual cortex and identify the waves of light that encompass green – we cannot account for the *quality* that is green – the greenness itself. Why does it appear to us as green and what does appearing even mean? If we close our eyes, we can conjure up the sight of green onto our field of vision – we see a greenness. Where is this from? It is from something we call Qualia.**

**Qualia is a phenomenological object that accounts for our recognizing the quality inherent to it. So, there is green qualia, there is red qualia, loudness qualia, sadness qualia. In fact, we contend that everything we experience is made up of qualia from sensations to emotions to thoughts.**

**Where does qualia exist then? We contend that it is ubiquitous throughout the universe. That it exists everywhere and everywhen. It is the building block of consciousness, but of universal consciousness. Where does it come from then? It is one of the three dimensions created from energy.**

**Energy, as stated previously, transforms into three dimensions; that of the physical (material), that of space-time and that of consciousness (or qualia). Each of these dimensions interact with each other and all three are needed for existence in the universe. The material by itself (atoms, electrons, physical objects) without the dimension of space-time, would have no location or persistence and would therefore not be able to exist. Likewise, but perhaps harder to comprehend, materiality by itself, without consciousness, would have no particular attributes and so again, could not exist. Existence is of energy and is thus dependent upon all three facets of energy.**

**In our theory of consciousness, it is qualia, within and throughout the external universe, that interacts with our functional make-up (psychological and cognitive) to trigger our inner experience of the outer universe and its attributes.**

**This is a unique perspective of consciousness and one that has not been proposed in the studies and publications surrounding the study of consciousness. As such, we thought it illuminating to compare our theory to the various ideas that were elucidated by David Chalmers in his landmark book about the fundamental theory of consciousness. In it he describes the state of the subject and many, if not all, of the theories, at least accepted reasonable theories, of consciousness – including his own at some point. Because he describes all those various theories, it becomes illuminating to compare, and in many cases, contrast, our theory to those. In this way, one not only gains a full understanding of our theory, but also is able to interpret it in relation to the state of consciousness studies that exist.**

**Here is that treatise and our comments regarding it:**

**A Theory of Consciousness brought out in comments relating to David Chalmers landmark treatise on Consciousness:**

**IN SEARCH OF A FUNDAMENTAL THEORY – By DAVID CHALMERS**

* **Note – Our comments are in bold while Chalmers comments are presented in non-bold type.**

He defines the “hard” problem as … “Why is there an inner life?”

The third constraint is that I take consciousness to be a natural phenomenon, falling under the sway of natural laws. If so, then there should be some correct scientific theory of consciousness, whether or not we can arrive at such a theory. That consciousness is a natural phenomenon seems hard to dispute: it is an extraordinarily salient part of nature, arising throughout the human species and very likely in many others. And we have every reason to believe that natural phenomena are subject to fundamental natural laws; it would be very strange if consciousness were not. This is not to say that the natural laws concerning consciousness will be just like laws in other domains, or even that they will be physical laws. They may be quite different in kind. The problem of consciousness lies uneasily at the border of science

**Our point exactly**

So, the problem of consciousness may be a scientific problem that requires philosophical methods of understanding before we can get off the ground.

Materialism is a beautiful and compelling view of the world, but to account for consciousness, we have to go beyond the resources it provides.

**CHAPTER 8**

Considers what a fundamental theory of consciousness might look like, and suggests that it may involve a close relation between consciousness and information. This is by far the most speculative chapter, but at this point some speculation is probably needed if we are to make progress. The last two chapters are dessert. Here, I apply what has gone before

Whither pan psychism? If there is experience associated with thermostats, there is probably experience everywhere: wherever there is a causal interaction, there is information, and wherever there is information, there is experience.

**This is the essential point in claiming that information itself is what consciousness (or experience) is “made of”. In this view everything, a rock, an electron, etc. has experience, has consciousness through the relationship (bridge) with information. Information in this view is the building blocks of consciousness. Note that “information” is not material, nor is it related to time. It has the same character as qualia, it is therefore something to explore further.**

**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 space-time, 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 timing.**

**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. 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. Qualia’s connection with space-time enables it to be “available” always, everywhere and everywhen.**

**So, in the final analysis, information is *representative* 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.**

He goes on to remark …. The view that there is experience wherever there is causal interaction is counterintuitive. But it is a view that can grow surprisingly satisfying with reflection, making consciousness better integrated into the natural order. If the view is correct, consciousness does not come in sudden jagged spikes, with isolated complex systems arbitrarily producing rich conscious experiences. Rather, it is a more uniform property of the universe, with very simple systems having very simple phenomenology, and complex systems having complex phenomenology. This makes consciousness less “special” in some ways, and so more reasonable.

… of the causation underlying experience in the brain seems to be active **(it is actually the effect, not the causation)**, in that relevant information is being processed constantly, neurons are firing, and so on. On the other hand, it may be that the distinction between active and passive causation **(effect)** 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. **(Not if the case is that experience is a direct and brute force thing).**

***The following comments are the crux of our theory of consciousness and bears reading carefully and twice:***

**We would state that it is Will, not action, that accounts for experience (consciousness). Possibly – Will has as a subset – action to it – this bears investigating. Is Will, 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* that action - a secondary aspect needs to be involved and interacting with that behavior. That secondary aspect comes from the effect of the application of Will with the cognitive causation of recognition. This application of Will is what accounts for our identification of that action as an experience.**

**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. It does this by being the effect of the qualitative (qualia) causation brought on by the outside agency (that is; existence with causation) of qualia. In effect, it “allows” qualia to interact with cognition (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).**

**Attention, with all its effects and abilities (which we will go into later) is the character of Will (Will’s aspect). As such, attention’s interaction with qualia 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 that is experience, but rather it is the *interaction itself*, the transformation, the cause and effect between qualia (cause) and attention (effect), that results in a conscious experience.**

**In this sense, it is the transformation between qualia and awareness (through attention) that accounts for experience – the transformation is the boundary condition between the material and the phenomenal. It is a transferring of 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 log that something has occurred whose essence, whose cause, is from outside the functionality of the mind.**

**It is the awareness, through attentive cognition, of the object that is qualia (though not materially). *In effect, our Will transforms a phenomenon (qualia) into a digestible material form – cognitive awareness.* It was attention (the Will) that was the receiver of the information – on one side of the bridge was the actual qualia, on the other side (due to interaction) is the description. Because we are describing the phenomenal in phenomenal 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 material – a class unto itself with its own “feeling” of *recognition*.**

**That feeling is the “Bing” of Penrose and thus the recognition 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). Therefore, there is no *Direct* experience of qualia, there is the indirect, secondary recognition of its essence. Just like in the material realm, we can know an object, but we cannot BE that object – we are once removed from it – it is our experience that connects us to it.**

the possibility that there might be properties more fundamental than phenomenal properties from which the latter are constituted. If there are indeed such properties then it would seem natural for them to be instantiated in simple systems. If so, then thermostats might not have experiences as we usually think of them, but instead instantiate a related sort of property that we do not fully understand (a sort of proto-experience, perhaps). This would retain the unified view of the natural order mentioned above, and might also help with the “winking out” problem (if proto-phenomenal properties are fundamental, then experiences constituted out of these properties might gradually “wink in” after all). By not claiming that thermostats have full-fledged experiences, this view may also seem a little less “crazy” than the alternative. Of course, the cost is the postulation of a class of unfamiliar properties that we do not understand; but the possibility has to be left open.

***ON THE CONCEPT OF ACTION:***

**We 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. 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 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).**

***Action* is integral to consciousness as the previous discussion about the Will and its interaction with qualia points out. The action that is attention 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.**

**The existence of these additional balls (action predicates) are 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 these consequential reactions, a type of effect from the cause of cognition. When though does Will or attention come into play? What triggers it?**

**Will comes into play, is initiated, when there is a logical programed systematic set that calls for attention in order to complete the action(s) set into motion by a cognition (or set of cognitions). This happens when the effects (actions) that have been initiated have not fully been exhausted. That exhaustion of actions (behavior) is programmed through previous learned responses or pre-programmed through instincts (survival, etc.).**

**When cognition has resulted in recognition (which is consciousness) then further actions will cease. Cognition however, does not result yet in recognition if the program retains unknowns. It is the unknown, due to its learned necessity of survival (the unknown can be dangerous and result in negative consequences) that necessitates (as part of its internal logical program) – *attention* to the inputs (cognition and reactions or other unknown objective inputs or recognitions).**

**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.**

**Not all cognitive triggers will bring about attention as the active agent, many will simply process the program that it has learned or been programmed to process for that particular circumstance (object or logical set of objects). But other cognitive “puzzles” will call for *Attention* to be able to proceed with the program. All objects, from outside (qualia) will produce this effect. Not all will bring about conscious recognition because some may be peripheral to any prioritized effect. But those that have “skin in the game” (i.e.; have an unknown component) will always trigger attention (the Will). Note that Will can also be triggered by desires. Desires are a subject that bears investigation on its own and will be addressed later in this.**

If the unrestricted double-aspect principle is correct, then presumably the answer is that all that “unconscious” information is realized in experience—it is just not realized in my experience. For example, if there is experience associated with one of my neurons in the way that there is experience associated with a thermostat, we would not expect it to be part of my experience, any more than we would expect my experience to be radically transformed if the neuron were replaced by a small conscious homunculus.

**Here again, it is the Will that processes information as “me” and all unconscious information, though possibly an experience to some sub process in the brain exists – it is not “me” because the Will does not act in concert with it (what does in concert really mean is another good question pertaining to how the will works – see “programmable actions” discussed previously). This here is an argument against AI (Artificial Intelligence).**

**So, when Chalmers ponders, “does a compact disk or a thermostat have experiences or consciousness? – the answer is that it would if it had Will, but it doesn’t have Will or any similar agent.**

* **Note – 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? 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).**

The most natural strategy may be to constrain the way that the information is processed. After all, I have already said that the information in my system that corresponds most directly to my experience is the information that is directly available for global control.

**That “global control” is the Will as discussed previously.**

**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. Awareness is a better intermediate term to use in that awareness involves attention but targeted attention defines 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.**

How do we understand the ontology of the double-aspect view of information? How seriously do we take this talk of information spaces and information states: are these just useful constructs, or are they in some way ontologically fundamental? Is information primary, or is it really the physical and the phenomenal that are primary, with information merely providing a useful link?

**This is a very key question he raises. As we discussed previously – information is merely description and is not fundamental or primary – it is secondary and is part of a link.**

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 ***brute*** 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 is their location within an information space. This is reflected in the fact that physics makes no commitment about the way these states are realized. 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. 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,

**An amazing conjecture. It says that just the understanding of the states of physic’s components serves enough for us to comprehend physics – we need not be in direct contact with those components. Likely – this is a good characterization of how energy, monadic energy, reflects the entire complexity of the universe – through differentiation and relationships.**

**Although we are once removed from what qualia actually is, through a secondary facet of information, as discussed above, without a direct access to qualia with no secondary intermediary, we would not be able to comprehend or experience qualia. Qualia is not simply laws and relations; it is a specific something that requires contact to experience.**

**This sounds as if qualia is an object 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 a phenomenal object in that case. However, in our theory there actually is. In actuality, when we do this willful conjuring, we are in reality tapping into a qualia that is actually present in time and space. Qualia, or in this case the quality of green, actually exists everywhere and always – this is due to its time-space component. The energy is one 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 – it’s more the case that the quality, the qualia of it, is not in our cortex or anywhere else inwardly, it exists in a phenomenal space outside of us, universally. When we conjure up green, we are using our Will to link to qualia that is present.**

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, for example, and 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 variously complex. Each qualia might very well be simple on its own and it’s our subjective opinion that gives unto it a complexity that it does not inherently have.**

**Seemly 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 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 qualia of that emotion, or the emotion begotten from the functional logicalness of desire. A chain of reactions is set off from the logical set that we associate with an emotion or a desire. Without the qualia effect or sensation, we would have no sensation of that emotion – we would in effect be a zombie. The chain of actions would take place inwardly and functionally, but no experience of it would happen.**

**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 more than one person (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 Will), any slight difference within us functionally will result in a correlate difference in the experience. 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 qualia) is identical, but the receptive recognition functionality differs, in the extreme in that type of case.**

**CHAPTER 10 – ON QUANTUM MECHANICS AND CONSCIOSNESS**

… but quantum theory alone cannot tell us why consciousness exists.

**Possibly true, but it might tell us *how* it exists (probabilistically, wavelike, etc.).**

**The Measurement Problem:** The only remotely tenable criterion that has been proposed is that a measurement takes place when a quantum system affects some being’s consciousness.

**This would indicate the inter-activeness of separate dimensions (space, time, universal consciousness) which we have postulated**.

… 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.

**But if a “speck of consciousness” was a COHERENT qualia in relation to what is being measured (qualia therein being more than just applicable to individual consciousness but more so applicable to all material objects) – Coherence to an electron spinning either up or down would be causing the collapse.**

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.**

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 those qualities mentioned here are the exact characteristics of consciousness. That is; the fundamental form that qualia take is one of instantaneous, discontinuous, temporally asymmetric and nonlocal. These particular characteristics would be from the effect and inter-relatedness of space and time’s portion of qualia.**

There is something very awkward about the idea that the world has two such entirely different sorts of dynamics at its basic level.

**Not when looking at the variances between dimensions of space, time and consciousness – energy’s facets will differ substantially, yet have connections to each other, in this case phenomenologically**.

Superposition, on another viewpoint, is everywhere. Why then does the world appear discrete?

**Because of Coherence.**

**CHAPTER 1**

To put it another way, 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 the major premise of “Mirrors” and we maintain that Qualia is the characteristic of the building blocks of consciousness (universal consciousness) in relation to our individual consciousness (through our Will).**

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 for space, time or materiality – yet 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-SELVES. 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 aprior entities, 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 it actually is. This is why the more we break something down (to atoms, then quarks, etc.) the more we can further break it down. Once we come to the most indivisible part, we can no longer find any constituent to it and therefore cannot develop a 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 consciousness.**

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. *The functionalist* analysis denies the distinctness of these questions, and therefore seems to be unsatisfactory.

**However, looking at the opposite side of Functionalism, perhaps ALL 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” of wetness and such feeling results in desire and then casual behavior. Therefore, qualia is the progeniture of all mental states including those that account for behavior.**

**However, in his view:**

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. We believe we 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.**

**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.**

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.

**However, as we have shown, 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.**

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.

**And this is exactly what we are stating.**

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. 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.

**And together account for experience.**

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.

**Not necessarily – we certainly have “unconscious” sensations of green and thus qualia transcend “knowing” or attention.**

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.

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.

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.

**This all agrees with what we have proposed.**

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.

**Interesting point about attention – again though, this speaks of the ability of qualia to affect unconscious states. It also agrees with our contentions and explanations regarding attention (see previous discussion about this as well as about awareness).**

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.

In general, wherever there is phenomenal consciousness, there seems to be awareness **(not so – there seems to be attention, awareness is a subtly different thing).** My phenomenal experience of the yellow book beside me is accompanied by my functional awareness of the book **(attention to the book, again; awareness is passive while attention is targeted)**, and indeed by my awareness **(attention)** of the yellow color. My experience of a pain is accompanied by an awareness of the presence of something nasty **(the attention to something nasty)**, which tends to lead to withdrawal and the like, where possible. The fact that any conscious experience is accompanied by awareness **(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).** This reportability immediately implies that I am aware in the relevant sense. **(No, that you attend to it in the relevant sense).**

**I don’t agree, the above I see 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 and awareness may have qualia of these experiences as progenitures of the ability associated with attention or awareness. This means that the “feelings” of attention or of awareness themselves are a form of qualia (have a specific quality). That without that qualitative experience of attention or awareness, we would not be aware or attentive (and could not “report it”). Here again is the concept that qualia is 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.**

The notion of awareness subsumes most or all of the various psychological notions of consciousness just enumerated. Introspection can be analyzed as awareness of some internal state **(a functionality).** Attention can be analyzed as a particularly high degree of awareness of an object or event **(targeted awareness).** Self-consciousness can be understood as awareness of oneself **(or as attention to the qualia of awareness).** Voluntary control is trickier, although it might be partly analyzed as requiring attention to the behavior one is performing. Awake-ness might be roughly characterized as a state in which one is able to deal rationally with one’s environment to some extent, and so implies a particular sort of awareness **(just semantics).**

Insofar as any remotely satisfactory explanations of “consciousness” have been put forward, it is usually a psychological aspect that is explained. The phenomenal aspects generally go untouched. **But not by us.**

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

**As for our theories about moral issues – see Mirrors and their moral correlation to the most efficient path of energy. We contend that coherence and the path of least resistance of energy accounts for these moral and aesthetic characteristics.**

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. **Nothing is “forced” – all is coherence!**

**As regards “aesthetics” – they too obey the path of least resistance of energy waves, but those paths may differ according to the person and are thus subjective, which is brought about by different histories (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 (an argument can be made for this of good and evil). Though aesthetically pleasing is a function of certain harmonics as is music, and thus is aprior 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 or good vs evil. 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 subjective? I would 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.**

***PART II The Irreducibility of Consciousness***

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.

**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.**

**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”) This is addressed and answered in my treatise.**

**I contend that it is the irreducible singularity of qualia in the universal that we experience. When that singularity is matched (coherent) then experience comes into our existence *from the outside* as real as a reflection of green off a surface enters into our cortex from the outside. So, object results in an inner object that does not exist “inside” but rather our inside bridges to the outside universality. The “Bing” is the ringing of the universal bell! 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 the 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 “outer” to us – non destructible and forever.**

**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 functionality, that is; the linking up to the outer qualia must match coherently to that qualia - must be made of the same “stuff” - must be begotten from energy. Silicon programming, as in the case of a zombie or 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. Because it is not, it cannot cohere with qualia and therefore cannot have a conscious experience. It can only produce a mimicking of behavior, of action. Thus, the nomenclature; “Artificial”. Note – “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 that could cohere to that of energy’s qualia (the Will?) then qualia matching would take place and a soul would exist. This then speaks of a “level” of functionality (complexity and the component’s make-up – that of energy’s facets) where consciousness (and soul) come into being. But here again – it’s cart before horse due to our vantage point. It’s not that the soul comes into being, the soul is always there (universally) – it’s that the facility for the soul to manifest physically (mentally physical) does deal with a specific configuration of mentality, but must also have the proper energy make-up. Rocks don’t have this facility, but mice do, etc.**

**What that facility is, again goes to the heart of the question of what is consciousness. I say that if the universe is indeed conscious (through the interrelatedness between space-time, materiality and consciousness, i.e.: energy) then everything in the universe has consciousness in it to some degree (yes, rocks too), only the simpler, non-organic objects do not have the ability to bridge (or send matching coherent waves/signals to the outer universality). So, it is this ability, borne of the Will (the bridge) 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.**

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 problem on me.

**Here, the mistake he makes is considering aprior that it is MY EXPERIENCE that causes the problem of understanding consciousness. If it isn’t MINE, 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 “sees” its identity as part of a larger whole, then its functionality would be understandable to itself. A cell does not have the facility to “see” – 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 thus**: *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*.**

**However, if one can eliminate every possible conceivable explanation of something (as is the case with consciousness) then, yes, it is unknowable by us, BUT – it is knowable that it is unknowable, and that known fact (of 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 therefore, something other than material (or space-time also) 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 *like*. And by coming to a “likeness” notion we can then grasp other facets that it likely has, and so on.**

**So, if we only have knowledge of the numbers of 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 fits with this abstract concept (as did the Mayans).**

**So in conclusion, we could indeed come to the conclusion that consciousness can be entailed by a set of physical facts (that of energy in this case) 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. 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-time. If we further discover that space-time and material-ness 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.**

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 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 functionally – that is the “what it is like” aspect of it.**

**He states:** It seems that the concept of consciousness is irreducible, being characterizable only in terms of concepts that themselves involve consciousness. **But here he misses 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. A non-reducible thing is a fundamental thing (like quarks, etc.) and thus consciousness is a building block fundamental of the phenomenal realm.**

… is the hardest problem for a theory of consciousness, and that no physical theory will take us all the way to qualia: This suggests 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.**

***5. The Appeal to New Physics*** 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.

**That’s exactly what I propound … that theory being born of energy and of a state that is not physical.**

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 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 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 aprior true and the nature of the term phenomenological.

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. **So what? So be it.**

**But applying energy as the monadic non-reducible agent, mitigates this statement above.**

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.

***Location* though invalidates this – the location of the qualia must be everywhere and with Hameroff it has only a singular, specific location. In our 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).**

**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.

**Penrose’s answer is “The bing” is what gives rise to consciousness, to self-knowing. We contend that “The Bing” is actually a feeling begotten from a qualia of “Bing-ness”.**

* **Note – “Feel” is a key to consciousness experience inwardly – to expound on this; Green has a subtle “feel”, red a different one. “Feel” that is below the level of cognition but there just the same and thus we “feel” colors, we feel qualia in our brain/nervous system. The Bing is a feeling – that feeling is a qualia of the feeling itself. All is qualia.**

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.

**So, something not of a physical explanation must come about. That is what we have proposed, outside of the material or space-time dimensions.**

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 **(as we have done).** 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.

***WHY THIS IS ALL SO AMAZING:***

**We do not want to reach a situation where, because consciousness is 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 from 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 outer 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!!**

**Chapter 4 - Naturalistic Dualism** An Argument Against Materialism 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.

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 or are the three entities different facets of one, monadic entity? I say 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 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.**

Because these properties are not even logically supervenient on microphysical properties, they are nonphysical in a much stronger sense. When I speak of property dualism 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).** 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 **(correct).**

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. **Agreed**

There are two ways this might go. 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 do exist – they are the qualia themselves. The “laws” of qualia is something that would need further investigation of. 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 on one, connection to 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 exist in connection with qualia (or energy in general).**

**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 it, and 2) It causes experience within a psychological, functional cognitive structure.**

**As regards the first issue; referral to the section in Mirrors about how cause and effect interrelates with the logical ordering of qualia within universal consciousness, is an exact rendition of this first law.**

**As regards the second observation; that it results in experience, a referral to the dynamics of how it 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-entity 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) 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 identity, definition and existence itself.**

**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 materially and phenomenally.**

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 **(and vice versa).** 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.

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 do have the ideas enumerated above about laws).** 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 **(which we have shown)**. 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. 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 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, symmetrically and elegantly, stem 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 **(and vice versa). It is the “vice versa” aspect that gives our 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 likeliness.**

To capture the spirit of the view I advocate, I call 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. **And thus, unification of a monadic causative agent.**

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 **(as we have labelled it – monadic, above).** 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)** 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 it is)**

Perhaps it may turn out that the duality of the physical and the phenomenal can be subsumed under a grander monism, but this will not be a monism of the physical alone. **That monism is energy – and ultimately; potential energy.**

epiphenomenalism. 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 shown (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).**

The nonsupervenience of causation. 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 **(that is that causation is fundamental or at least a fundamental part of consciousness – again, refer to Mirrors discussion of causation and effect).** 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 said).** Both are quite mysterious, after all, and two mysteries might be more neatly wrapped into one.

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 **(it’s actually the opposite; causation results in the realization of consciousness cognition)**, 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 to exist **(just the opposite however – it’s the existence, or fact of causation that allows for experience to exist – at least in a logical order),** so that there is a subtle sort of relevance for experience in causation.

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 is 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 **– or ones that are fundamental and thus are not “two-way” relational).** The picture of the physical world that this yields is that of a giant causal flux, 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. **The answer is because of Energy and it is “silent” because it’s fundamental.**

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. 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, so that the world has some substance 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. **(except in the study 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? **(Yes – that is from their inter-activeness)** 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. **(At least not on the fundamental level)**

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. **(Yes, causation plays the same part as interaction)** 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).**

**I would think it would be just the opposite; that physical causation inherits its action from phenomenal factors.**

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. **(this is exactly our theory)** These properties “realize” the extrinsic physical properties **(and the phenomenal properties),** and the laws connecting them 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. **(Yes – qualia is all)** A less extreme case in which intrinsic properties are proto-phenomenal, or in which some are neither phenomenal nor proto-phenomenal, is perhaps best regarded as a version of Russell’s neutral **monism (In our theory, incidentally, the Will is neutral).** The basic properties of the world are neither physical nor phenomenal, but the physical and the phenomenal are constructed out of them **(from energy).** From their intrinsic natures in combination, the phenomenal is constructed; and from their extrinsic relations, the physical is constructed. **(Yes)**

**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 formed from geometrics, and thus geometrics have inherent within them the 3 derivatives of energy. Being derivatives, by the way, allows for causation between the entities.**

On this view, the most basic laws will be those that connect the basic intrinsic **properties (as was enumerated previously – that is; interaction - causation).** 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 (or properties constructed out of these) to their relational profiles (or to complex relational structures). Thus, these laws do not “dangle” ontologically from physical laws. Rather, both are consequences of the truly basic laws **(the laws of energy as demonstrated previously and 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).** 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 **(and vice versa).**

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. **(we do)** 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. **(not true and in direct contradiction to everything posited above. Option (iv) is therefore refuted).**

**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 all (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. Things simply happen in accordance with the law; beyond a certain point, there is no asking “how.” **(the “how” is causation and eventual recognition)** 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.

**I say this is akin to giving up.**

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 **(not true – consciousness and physicality came upon being concurrently),** 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 **(No, consciousness always existed – it just went cognitively unrecognized – when the physical systems evolved, or manifested, so too did consciousness, as did space-time).** Given that psychophysical laws exist and are timeless, as naturalistic dualism holds, the evolution of consciousness poses no special problem.

**I wholeheartedly agree**

***CHAPTER 5***

***Consciousness & Cognition***

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. **(which we did)**

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 explaining 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. **(agreed)**

But this does not explain the contents 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 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. **(though it is in the sense that the mediative agent is the Will and coherence to qualia).** Conscious experience lies at the center of our epistemic universe; we have access to it directly **(though through secondary aspects to do with coherent recognition only – it cannot be direct access)**

**PART III Toward a Theory of Consciousness**

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. **(But we can explain it in something more basic – energy)** 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, **(Yes, they do – of energy)** 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. **(as does consciousness) – 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 (although not logically) 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).** 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 not a detailed specific rendition of a specific qualia).** These laws will be on a par with the laws of physics as part of the basic furniture of the universe. **(Yes)**

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.

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) An explanation akin to the theory of energy and its Tri-level dimensions that include 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. **(which we do)**

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 **(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. 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 so, 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 trust in probable belief).**

**It seems to me to be ironic in that 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. Yet 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” – 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 phenomenal aspect, and therefore E=MC squared is a case where the phenomenal is represented by a mathematical term!**

* **Note to explore – Why are zombies not conscious (or are they?) Also – the role of symmetry in it – the symmetry of space-time, materiality and consciousness as the trilogy (or trinity) of energy.**

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, is ubiquitous.**

**This 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. **(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).**

2. Principles of Coherence 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. **(Amen)** By thinking about these judgments and the way they function in our own case; we can come up with a number of principles connecting the phenomenal to the psychological.

**He calls for a *bridge* – which we provide as the Will.**

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 **(that is recognition – though of a certain specific coherent type).** 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 say it is attention, awareness being receptive while attention being interactive and targeted).** Recall that awareness is the psychological correlate of consciousness, roughly explicable as a state wherein some information is directly accessible and available for the deliberate control of behavior and for verbal report **(maybe available – but not “in action”, attention is awareness in action).**

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 **(but a specific type of functional perception or 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, **(only if the Will is coherent with the qualia of redness)**

**I do not agree – I think that all the time we are experiencing consciousness but we are not all the time experiencing awareness. Consciousness is over-arching.**

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).**

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 DIRECT experience of qualia, and it is attention to it that results in recognition, not awareness – again, awareness being passive and thus not *causing* recognition).**

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**. (Absolutely true)** 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.

**Consciousness is ubiquitous. Awareness 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. **(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”).**

**If this 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, 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) – 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, an 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 prejudice toward the physical.**

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 **(attention, cause and effect structure).** 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 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 Chalmer 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.**

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 is not purely information (though it may have information as a secondary part of it) – and being always present it exists as our experience – that is the somewhere – not a physical location, but rather a time-space caused 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 circuit 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 is of itself and that the only correlation to inner functionality (like a visual cortex) is one of projection, like a projector, not one of experience).**

**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’s 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). 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.**

**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 that we are near 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 *Awe* – we are stupefied and we have no conscious relation to it, we actually have suspended experience (or the recognition thereof). The qualia is 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.**

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 demonstrated previously, I find this not to be so).**

I will call this the principle of structural coherence. **(maybe it is structurally coherent, however it is not conscious – it must be non-structurally coherent, phenomenologically coherent to be conscious)** 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.

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 coverage of dreaming previous to this).**

**Is this however an agreement by him that Will is connected with the ability for action?**

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.

**Is 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 qualia then. Do inner qualia only exist upon coherence with attention (the Will) or is it always there and just not accessed? The correct answer is that it is always there, we do not however always tap into it.**

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. **(agreed)**

It is not at all clear that most of our experiences are objects of our thoughts **(they are not “objects of our thoughts – they are qualia).**

**If there is a mediating function (like Will) 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 “bussing attention” or recognition of simply being).**

**He submits that the availability for global control (action) is a prerequisite of consciousness. This may then point to again 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 the opposite, it seems as if when using the Will, we are on an automatic shut off of diversionary thought – we are focused, and that focus assures that we are connected to the action we have sought – attention, 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, is on auto pilot and is open to accept qualia experience. Possibly the “experience” of the Will is a qualia itself – in its own right – a feeling of Will, an experience of “Will”.**

**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.**

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. **(We agree except that it is not “the explaining” or understanding of what is going on. Experience, consciousness, qualia is more direct and brute than that, and it is what it is).**

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 experience. So, one might say that consciousness has *potential* structure, but is monadic otherwise.**

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,

**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. **(Correct)**

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. **(Not so – experience cannot be “cataloged”).**

**I don’t agree. 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. 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. Phenomenon itself cannot be reduced into anything other than its qualia.**

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* being the physical effect of phenomenal causation.**

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. **(but they are “conclusions” – conclusions of the Will).**

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 we do not adhere to).**

**I don’t agree – I think that the information is then “still” part and parcel to awareness. A circular functionality then.**

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 we do not necessarily subscribe to. We believe that experience just is onto itself whether reportable or not. We 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 **(Not so – this goes one level too far as attention, in his case awareness, needs no further linkage).**

Empirical results suggest that the physical states that play a in this species, N is a physical correlate of consciousness. **(Maybe a correlate, but only a non-endowed representation – non-endowed with consciousness).**

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 the global control principle – it is the indirect linkage with the direct availability that results in experience, not “global control”).**

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.

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**. (Yes)**

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. **(No, the system must have a specific capability to bridge).**

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 **(Not so, however this does point to a characteristic of universal consciousness).**

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. **(No, again this misses the point about consciousness and qualia being “brute” and not subtle or mediated functionally).**

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. **(Not so)** There seems to be little reason to believe in any instances of consciousness without the accompanying functional processes **(True if you say special coherent functional processes that result in a phenomenally based recognition).** 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. **(This only accounts for individual awareness and 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 phenomenal recognition born of attention).**

**Don’t forget that universal awareness, according to Mirrors, is a direct consequence of cause and effect which orders qualia into logicalness. See Mirrors on this. Because, other than cause and effect, the qualia are non-directional and have no inherent or aprior logic to it – the logic is brought about through the ordering brought on by cause and effect – see Mirrors.**

Call the hypothetical extra ingredient the X-factor . Either I am conscious in virtue of awareness alone, or I am conscious in virtue of awareness and the X-factor. The X-factor might consistently be any property, as long as it is possessed by me now, and preferably throughout my life**. (No, the X factor is the organic recognition caused by functional process and linking through a bridge).**

**The X Factor may be thought of though as qualia.**

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.

Principles of simplicity dictate that the best hypothesis is that no X-factor is required, and that awareness gives rise to consciousness without qualifications. **(No, there are factors and thus qualifications – the recognition and linking are factors).**

***QUALIA CHAPTER***

A given functional organization can be realized by diverse physical systems. For example, the organization realized by the brain at the neural level might in principle be realized by a silicon system. A description of the brain’s functional organization abstracts away from the physical nature of the parts involved, and from the way that the causal connections are implemented. All that counts is the existence of the parts, and the dependency relations between their states.

**Not however if the fact that it is organic may indicate that it “feels” inputs.**

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:

**I do not agree – this misses the quality aspect of conscious experience.**

**This treatise now becomes not only frustrating and disappointing, but it seems to me to “double cross” his earlier correct insights. Those insights, which he repeatedly expressed, said that there is a phenomenal quality to consciousness which material or physical systems can not 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 – a natural monism. 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. Like I said, I read the rest of this in a state of frustration and even of anger.**

**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 now turns his back on this and proclaims that consciousness can be brought about through purely physical systems.**

**He goes on now that:** “one can believe that consciousness arises from functional organization but is not a functional state”.

**I Disagree**

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.**

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 this).**

The invariance principle holds that functional organization determines conscious experience by some lawful link in the actual world**; (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! **(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 – both must be born from energy – a nation of robots is not so born).**

Of course, as Block points out, we know that neurons can do the job, whereas we do not know about homunculi.

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 Will. The Will is 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 the Will nor can a complexity of programmed silicon ever induce willfulness and attention. These are of consciousness itself, and being so, defy silicon programming).**

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? **(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 Panpycism. Neurons are not conscious. Consciousness does not reside in a functional location. Once it is triggered (recognized, experienced) is does do 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 non- coherence) and no consciousness could be experienced.**

**He doesn’t though 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 (as a baby). 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 for the 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**. (No, for the same reasons as argued above).**

**This needs refuting simply on a plausibility level. But what is missing in a population simulation of functionalism is the ability to be coherent to qualia in its energetic make-up (the make-up of energy).**

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**. (It doesn’t determine experience at all).**

**This he calls Inverted Qualia, however I think that inverted qualia is 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.**

* **Note – Put forward how the three dimensions of materiality, space-time and consciousness must all work in concert to result in qualia consciousness. In this scenario it will be space-time that is hard to intermingle with the other two dimensions.**

***Some brief thoughts on Consciousness extracted and commented from: The Hard-Terminological Problem of Consciousness Alexander Boldachev***

Thus, 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, i.e.: out there in the universe to be grasped or attended to which we propound.**

… 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. **This then is a refutation of universal consciousness, which we reject.**

INTERNAL VS. EXTERNAL

**This *pre-supposes* that consciousness only exists with respect or relation to an object and cannot be a non-object or non-material, which thereby rejects universal consciousness.**

**…** 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**, i.e: material**

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.**

THOUGHT

However, in contrast to actions with things, cognitive activity (thought) organizes and structures its objects in time, rather than in space.

**This goes along with my conception that consciousness within us (our individual consciousness) is ordered by cause and effect (see subject in Mirrors).**

MIND/BODY PROBLEM

QUESTIONS:

***- 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 FROM – 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”.**

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.**

The answer to the last question automatically clarifies the next one as well: “Can consciousness casually affect itself?” Of course not. All causal connections are realized only and exclusively between objects that are given in consciousness. Consciousness, in its ontological status as a non-object, cannot exert influence on anything.

**Once again, this is only true if one considers whether consciousness is an object (thereby forming the certainty that it is not; i.e.: 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 third, unknown entity (emanating from energy) – the three derivatives of energy – time, space and consciousness itself.**

**All of his arguments are refuted as soon as you consider consciousness as an object, 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) 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 (or unnatural) then individual consciousness could not exist. It is generated in the brain through its bridge, through the Will, with the universal.**

***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.).**

**CONSCIOUS AND UNCONSCOUS 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 applied to them (again, Will being the bridge or connection to the universal consciousness, to qualia).**

**THE ROLE OF CONSCIOUSNESS IN ACTIVITY**

… 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 efficient use).**

**ACTIVE PARADIGM**

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 – *cannot be used for the execution of the next action*: 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.**