

Some Meditations on Seeking Knowledge: An Alternative Approach

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Oh Deep Water

The late Quebec song-writer, musician, and singer, Daniel Lanois begins his beautiful, moving, creation - *The Maker* - with:

“Oh, oh deep water
Black and cold like the night
I stand with arms wide open
I’ve run a twisted line
I’m a stranger
In the eyes of the maker.”

The foregoing set of words resonate with many aspects of life, but I will choose to reflect on them briefly in the context of issues concerning one’s relationship to Being ... to Reality ... to Truth ... to Knowledge.

Irrespective of whether one is engaging existence as Being, Reality, Truth, or Knowledge, its waters are exceedingly deep ... deep beyond computational engagement – though, very likely, such a claim will be anathema to those who believe that the universe is eminently reducible to a set of mathematical equations. Yet, those waters are -- more often than not (except for a few tiny, shallow, tidal pools strewn along the beach) black, cold, and seemingly unfathomable.

On many occasions in my life, I have felt like my arms have been held wide-open, like someone from one of the left-over cargo cults from World War II, while waiting for a drop of epistemological supplies and tools that never arrive ... or, they arrive in a form which I do not recognize or for which I am not prepared. Indeed, I often do not recognize what is right in front of me or am not prepared to engage what is present because “I’ve run a twisted line” in life.

To whatever extent I am, and have been, a stranger to me – to my potential ... to my possibilities ... to my essential nature – I am a stranger in the vision of That which is responsible for my existence. I am estranged from my Maker.

That which has brought forth the network of manifestations which constitute all life embraces my potential and is no stranger to the dynamics that form the chaotic attractor of my being. But, to me, it all seems other and, as such, I am a 'stranger in a strange land.

My hermeneutic/epistemic quest started in a rather inchoate manner – that is, with me not even knowing it had begun. As a child between the ages of 0-plus to about 8, I wandered about (crawling, stumbling, walking, running, playing), not really understanding why I was wandering about while doing any of the foregoing activities.

I picked up data here and there during those years. Some of this data was cobbled together so that it seemed to make sense, and, as a result, I used the cobbled, conceptual structures to navigate about different aspects of life. However, being able to cobble things together hermeneutically or epistemologically doesn't mean that such residues from life were being assembled correctly or in an accurately reflective manner since whenever reality poked its head into my carefully or sloppily crafted understandings, I would note that there often was a difference between what I thought I understood and the way that reality seemed to be.

In the third grade and rather inexplicably, the formal aspects of my training began to change. For unknown reasons, my teacher (her name was Irene Perry) decided to place me with the advanced reading class rather than keep me in the challenged one to which, previously – again, for unknown reasons – I had been assigned.

In the less advanced group, I found reading about Dick, Jane and Spot somewhat challenging, not least of which was trying to figure out what the cast of characters whom I was reading about had to do with my life because I didn't know any Dicks, Janes, Spots, or, sometimes, Sallies. I also found the reading in the more advanced group challenging as well – except I don't remember what we were reading – so, while in the latter case I was being challenged at a supposedly higher level, nevertheless, the less advanced material seemed to stick with me while the more advanced stuff seemed to elude me – at least as far as memory is concerned.

The Construction of Facts

Without knowing what I was doing, I constructed “facts” – many of which later had to be discarded due to their poor workmanship. I also generated theories – many of which were falsified by subsequent experiences – and, therefore, I was forced to return to the drawing board of my mind to sketch new hypotheses concerning the dynamics of living.

For a number reasons, use of the term “facts” in the previous paragraph tends to induce a certain amount of conceptual pause. For example during the first several years of high school, I participated in a set of programs in math and science (which arose out of the Sputnik crisis) that were administered by the state of Maine, and despite the fact that my small educational facility (consisting of 44 students with me being the only student enrolled in the program) was, for unknown reasons, one of the schools selected to be visited every couple of weeks by professionals with backgrounds in science and math, I never heard – either from the visiting tutors or from the instructors on television – anything about what a ‘fact’ was.

During my four years at high school, I took courses in earth science, biology, chemistry, and physics. Yet, I don’t recall any discussion in any of those courses, conducted by a number of different individuals, that covered what was meant by a ‘fact.’

Between my junior and senior year in high school, I was granted a National Science Foundation scholarship to be part of a 6-week program exploring issues concerning semi-conductors at Pratt Institute in Brooklyn, New York. Once again, none of the instructors who administered the course and who had backgrounds in chemistry, physics, and engineering bothered to mention what a ‘fact’ was.

After four years at Harvard and a honors degree, the notion of “facts” never surfaced despite having completed courses focused on various aspects of: Natural science, chemistry, philosophy, and psychology. Perhaps, facts were not all that important.

Subsequent to the foregoing dynamics, I pursued a masters, and, then, a doctorate in Education at the University of Toronto, and the curricula for those programs entailed a great many courses in various aspects of philosophy. Nonetheless, once again, the topic of ‘facts’ seemed to be absent from the learning material.

To be sure, many of the foregoing sets of educational experiences talked about: Assumptions, definitions, hypotheses, inferences, deductions, inductions, abductions, logical systems, observations, perceptions, artifacts, data, arguments, methodologies, laws, principles, foundations, confirmations, refutations, Bayesian probabilities, analyses, questions, conjectures, falsifications, proofs, theorems, skepticism, world views, frameworks, theories, hypotheses, beliefs, descriptions, causalities, explanations, predictions, biases, filters, justifications, paradigms, models, evidence, interpretations, conclusions, discoveries, and revolutions. However, the nature, structure, character, and dynamics of “facts” did not seem to be part of those discussions.

What, exactly, is being checked when “fact checkers” allegedly check facts? How do facts arise?

A response to the above questions could begin with one of the few things which stuck with me from my undergraduate years and concerned a set of discussions which took place during a course conducted by Morton White who left a few years later to spend time at the Institute for Advanced Study that is situated on, or near, the Princeton campus. The theme which connected those discussions was the notion of “causality,”

Although the aforementioned instructor might have had many educational reasons for pursuing the foregoing theme, what I gleaned from those discussions had to do with how complex the idea of causality could be. One of the examples given in the class concerned the lighting of a match – a seemingly simple causal scenario.

Some might wish to say that the cause of a match being lit is for the head of the match to be struck with sufficient friction to ignite the chemicals that sat atop the wooden or cardboard-like body of the match stalk. However, the issue was more nuanced than that.

If the chemicals in the match head did not contain sulfur or antimony trisulfide (the basic fuel), potassium chlorate (source of oxygen), powdered glass (helps to generate friction and, therefore, heat), as well as some form of glue (usually animal glue of some kind) to hold the chemical components together, or if the match head didn’t contain the right amounts of those substances, then, striking the match might not cause the match to light. In addition, if the basic body of the

match to which the match head was affixed did not possess sufficient tensile strength to withstand the rigors of the match being struck, then, again, the match might not light when struck.

If the match were old, the components in the match head might have deteriorated to some degree and, as a result, they might not have been able to interact properly with one another, and, therefore, when the match was struck, it might not have lit. One might also wish to consider what induced an individual to try to light the match at a given point in time and how such thoughts, purposes, motivations, interests, and intentions could affect the causal factors which affect whether, or not, a match will be struck, let alone whether, or not, it will light.

If the match was wet, or if the weather was rainy or windy when the match was struck, then, the striking of the match might not cause the match to light. On the other hand, if the striking dynamic was not sufficiently forceful or was not done in conjunction with the sort of surface that might help the ignition dynamic, or if the striking of the match were not done with the necessary speed to generate the heat needed to ignite the fuel in the match head, then, once again, the striking dynamic might not “cause” the match to light.

So, manufacturing processes, atmospheric conditions, the physical condition of a match, the mental state of the individual who decides to try to light the match, as well as the dynamics of match striking all figure into the causality of match lighting. One might also wish to include within the foregoing framework of causality such factors as: The inspirational and experimental activities which led to the idea of a match in the first place, along with the inventiveness that would have been necessary to establish a manufacturing process that created matches – and, perhaps, one could include any loans or investments which might have been needed to subsidize the various processes of experimentation, inspiration, discovery, and inventiveness that led to a finished product emerging from a set of interacting dynamics, as well include, perhaps, the various modes of transportation and commercial enterprise which helped make matches to become available to the public.

Simply stated, striking a match does not cause it to light. The network of causality runs much more deeply, broadly, and complexly.

The same sort of nuanced considerations might be operative when it comes to the idea of a “fact.” For example, assumptions are often made in the process of generating a “fact,” and, therefore, one would need to critically reflect on the quality and plausibility of those assumptions before one could say that a given “fact” might accurately depicted a given aspect of experience.

Beliefs, values, biases, interpretations, opinions, perceptions, memories, world-views, paradigms, theories, modes of logic, vested interests, systems of evaluation, forms of analyses, hypotheses, theories, and probabilities can all impinge on the status of a “fact.” Observations, experiments, methodologies, training, critical reflections, questions, anomalies, possible inconsistencies, incompleteness of data, experiences, judgment, the kinds of mathematics that are used, what metrics are employed to give expression to an alleged “fact,” whether, or not, technological devices that quantify those metrics have been properly calibrated, as well as the need to maintain funding or to be able to get published in so-called reputable journals, or to be able to continue to have a job can all impact someone’s claim that something is a “fact.”

Some “facts” claim to be accurately descriptive of something, and whether, or not, this claim can be substantiated requires a complex set of processes to be pursued to test those claims. Some “facts” claim to constitute explanations of a given phenomenon, and whether, or not, this is the case requires a complex set of processes to be pursued to test those claims.

The set of considerations or empirical/methodological bar which must be cleared to be able to argue that one is justified in claiming that something is factually true tends to be much higher in issues involving explanations than in issues involving descriptions. The factors that must be determined to establish whether, or not, claims that various considerations have been satisfied to the extent needed to justify (descriptively or explicatively) claims that something is factual – either in conjunction with descriptions or explanations – are fairly complex and tend to be entangled with one another.

Moreover, even if a given set of facts were to be considered to capable of accurately describing a particular event, that accuracy does not necessarily involve any explanation of why what is being

described tends to manifest itself in the way it does. In addition, even if a given set of facts purports to explain a given phenomenon, nevertheless, just because an individual or consensus of a group of individuals accepts such a possibility and, as a result, believes, or holds, that such an explanation is valid does not necessarily confer 'factual' definitiveness upon such allegations.

The claim that an individual or consensus of individuals within a group accepts a given claim might be factual. The extent to which either the process of accepting such claims or the extent to which various claims that allude to something beyond the individual or consensus of individuals are factual is a different matter.

Facts are not found. They are constructed, just as 'causes' are constructed.

Whether, or not, such constructions accurately reflect – descriptively or explicatively – that aspect of Reality or Being or Existence or Experience to which those constructions allude is not a straightforward matter. For instance, what is the metric for determining accuracy, and what justifies using such a metric rather than some other metric, and what are the conditions or criteria which must be present to demonstrate that those sorts of claims concerning accuracy are justified, and why are the foregoing kinds of conditions and criteria being cited rather than some other set of conditions and criteria, and why should one accept such an orientation, and is one justified in doing so?

So-called fact-checkers don't actually check facts, except in the sense that a hockey player checks a player on the opposing team. In other words, an alternative for control of the puck ("fact") is being introduced by the player doing the checking, but play continues on with subsequent checking to be anticipated, yet not necessarily with any final resolution concerning the fate of the puck.

Seeking the nature of reality is a little more difficult than playing hockey and trying to find ways to control pucks (facts). In hockey, the puck doesn't keep changing during the course of play, but when seeking to determine the nature of reality, the 'puck' is constantly being constructed and reconstructed on the fly – sometimes beyond recognition.

Furthermore, the instruments which are being used to move pucks in hockey are unlike the instruments which are being used to move facts in the dynamics of reality seeking. The latter instruments are constantly being altered during the course of the game in order to change the way those instruments engage the constructs referred to as “facts,” and part of that process of alteration involves figuring out how those instruments can change the appearance, structure, and dynamics of the constructs which are being moved about in one arena, lab, forum, classroom, book, article, symposium, or another.

In addition, hockey tends to have a fairly set number of rules which govern the way the game is played – although, sometimes, new rules are introduced into the game over a period of time and not while the game is being played. On the other hand, the process of seeking Reality, Being, or Truth often operates in accordance with principles – not rules.

Principle-governed phenomena tend to be much more complex than are rule-governed phenomena, and, quite frequently, such principles are discovered and, then, discarded or reformulated during the course of the truth/reality-seeking dynamic. Moreover, the rules that establish what constitutes icing the puck are fairly clear-cut, but the principles governing reality tend to be subtle and often tend to manifest themselves in a variety of forms that are self-similar to one another but, are not necessarily, self-same with each other.

For instance, the principle of love can be manifested in too many ways to be reduced down to a single, small set of conditions, criteria, and considerations that are capable of exhausting the way in which love can be manifested or offered. Similarly, the principles governing cosmology, quantum physics, gravitational phenomena, fluid dynamics, climate, biological activity, and electromagnetic frequencies – to name but a few possibilities -- are like the principle of love in this respect ... that is, those principles are not easily, if at all, reducible to a simple set of rules which invariably are the case under all circumstances and conditions and, thereby, exhaust how such phenomena can manifest themselves in what is referred to as ‘material’ or ‘physical’ reality.

Reality-seekers are trying to construct “facts” which are capable of accurately describing and explaining the phenomena to which Reality

gives expression. However, what has been said in the context of cups – namely, “There’s many a slip ‘twixt the cup and the lip” – applies, as well, to the alleged realm of establishing “facts.”

Epistemology as Meta-Knowledge

Epistemology is said to be a process of exploring and reflecting on various theories of knowledge. More often than not, the only knowledge one might acquire in the inner sanctum of epistemology has to do with the properties, nature, logical character, structure, and dynamics of different theories of knowledge rather than gaining insight into ‘That’ – i. e., Reality or Being – with which such theories are supposed to connect one and provide one, hopefully, with insights into, and an understanding of, the essential character of one, or more, dimensional aspects of Reality or Being.

As such, epistemology tends to be an exercise in metaknowledge. In other words, one tends to spend one’s time trying to acquire knowledge about someone’s ideas concerning how to go about acquiring knowledge concerning ‘Reality’ or ‘Being’ rather than acquiring knowledge about ‘That’ to which such theories of knowledge are supposedly alluding.

On the other hand, the process of trying to understand how a given individual or group of individuals goes about trying to seek knowledge provides a template, of sorts, that can be used as a preliminary kind of training skirmish with Reality. In other words, by engaging in a process that seeks to understand someone’s ideas about how to go about seeking the truth, one runs into the same kinds of problems, issues, topics, and questions which one is likely to encounter when trying to seek the truth about ‘That’ which makes the search for any kind of process of inquiry or understanding possible.

Open, virtually, any book that deals with the topic of epistemology, and one will find chapters on, or discussions of, or explorations into: Consciousness, sensation, perception, concept formation, language, belief, understanding, emotion, intuition, dreams, and memory. These are the primary conduits, venues, or channel-ways which link us to, and through which we engage, ‘That’ which makes such conduits, venues, and channel-ways possible.

In addition to the foregoing modalities of accessing and generating experiences concerning 'That' which can be engaged according to the degrees of freedom and constraints present in such modalities of instrumental contact or linkage, books which explore epistemology tend to touch upon – lightly or heavily -- a variety of tools that can be used to identify, characterize, quantify, and analyze the foregoing sorts of modalities of contact or engagement. Among such tools are: Curiosity, observation, reason, critical reflection, skepticism, the interrogative imperative, experimentation, abduction, interpretation, interpolation, extrapolation, heuristics, insight, imagination, measurement, and character (i.e., seeking the truth tends to require qualities such as: Objectivity, honesty, integrity, fairness, humility, and equanimity ... although, occasionally, limited progress can be made in the relative absence of such qualities of character, but, sooner or later, these kinds of searches tend to lead to a fracturing or distorting of search activities).

Aside from the aforementioned issues of natural instrumentation which link us with 'That' which makes such instrumentation possible or with respect to which such instrumentation is oriented and apart from the issues of methodology to which the foregoing sorts of tools give expression, there are also various forms of dynamics that seek to evaluate the data which arrives via the use of natural instrumentation and the application of conceptual tools. These kinds of dynamics have to do with matters of: Justification, proof, probabilities, understanding, explanation, description, as well as judgment.

Finally, there are conceptual networks or systems that seek to organize and integrate the experiences which are generated through use of the foregoing sorts of: Instruments (both natural and invented), analytic methods, and processes of evaluation. These networks or systems of integrated organization come in the form of: Assumptions, hypotheses, theories, world views, paradigms, and models.

For example, the Vienna Circle (its heyday was largely between 1924 and 1936) was begun by Otto Neurath and Morris Schlick. However, a vast array of individuals – such as (among others): Rudolph Carnap, Ludwig Wittgenstein, Hans Reichenbach, A. J. Ayer, G. E. Moore, Gottlob Frege, and Bertrand Russell all made various contributions to the conceptual orientation, methods, and approaches

of the system of thought that was encompassed by what has become known as, or referred to as, The Vienna Circle.

There were also progenitors for that Circle. These included the work of individuals such as: Auguste Comte, David Hilbert, Ernst Mach, Philip Frank, and Albert Einstein.

Although there were many different themes and possibilities which were running through the Circle's conceptual orientation, there was a central – albeit variable -- premise which tied together all of the foregoing interests and contributions. More specifically, they all believed that a more effective kind of empiricism could be constructed by an appropriate use of mathematics, logic, and language.

The foregoing perspective could be reformulated as a search for that which was entailed by the fundamental nature of mathematics, logic, as well as language, as well as by making a few inquiries into the nature of the relationship of the aforementioned sorts of considerations with one another. Upon completion of the foregoing tasks, one would, then, be left with just a few additional questions to consider – namely, what might an 'appropriate' use of mathematics, logic, and language look like, and what are the criteria for determining what constitutes 'appropriateness,' and what justifies the use of one set of criteria rather than another with respect to a notion of appropriateness? ... easy-peasy!

All of the above-noted queries are entangled in the many processes and dynamics which have been listed in conjunction with issues involving instrumentation (natural and invented), tools of analysis, and modalities of evaluation. In other words, one returns to the most fundamental of questions: How are 'facts' constructed; or, what is the nature of the relationship between such 'facts' and that which makes the search for, and construction of, those 'facts' possible; or, how does one determine the reliability of one's response to the aforementioned: "What is the nature of the relationship between ...," question?

Mathematics, logic, words, and concepts are all ways of describing the foregoing response. Description, of whatever kind, is a form of characterizing experience, and such processes of characterization give expression to the dynamics of 'fact' construction.

The numerous terms (as well as the many questions and problems to which they lead) that emerge in conjunction with the foregoing overviews of: Instrumentation, methods, evaluation, and the conceptual systems or networks that seek to organize and integrate the use of: Instrumentation, methods, and evaluation – all of the different set of terms apply to issues of mathematics, logic, language, and concepts. Indeed, all of those terms apply to the dynamics of ‘fact’ construction which take place in whatever discipline one wishes to consider and in relation with whatever term one wishes to consider, but the construction of ‘facts’ that takes place in conjunction with those disciplines and terms might (to varying degrees), or might not (to varying degrees), accurately (according to some metric of accuracy) reflect, or give expression to, the nature of that to which such constructions allude – and, to the foregoing considerations, one might, in a tone that involves a serious kind of levity, adds words to the effect that the current message might, or might not, self-destruct in x-amount of time, and, should you decide to accept the epistemic mission, then, be advised that if you or any of your IM team are caught or killed, there will be many who will disavow all knowledge of, or concern about, your actions.

Alternatively, the task before us resonates with a recurring set of lines from *The Prisoner*, an existentially-tinged, surrealistic British television series starring Patrick McGoohan (playing the role of an ex-secret agent who has been kidnapped and whisked away to a mysterious island) as Number Six and Leo McKern as Number Two, and the series ran from September 29, 1967 to February 1, 1968.

“Number Six: ‘Who are you?’ Number Two: ‘I am the new number two.’ Number Six: ‘Who is number one?’ Number Two: ‘You are number six (or is it: You are_ number six’ – commas being a part of written language not spoken language but used as a way of interpreting what is being said)’. Number Six: ‘I am not a number, I am a free man.’ However, determining what is real or what is illusory, as well as what is entailed by the ideas of freedom and being human becomes an on-going conundrum for Number Six (at least for 17 episodes).

Quantum mechanics has given rise to a most precise form of describing, characterizing, and predicting the dynamics of a bevy of

fundamental entities known as: Fermions (e.g., protons and neutrons, which consist of an odd number of quarks and operate in accordance with the strong force – that is mediated by the meson which helps constrain quark behavior); leptons (e.g., electrons and neutrinos), as well as bosons (the so-called carriers or transmitters of force in relation to: Photons – e.g., electromagnetism; Z and W entities – associated with the weak force and are involved in phenomena such as radioactive decay; gluons – involved in the governing of quark dynamics, and the Higgs, which is entangled with the property of mass in ways that, at the present time, are not fully understood. Unfortunately, notwithstanding all of the mathematical precision of quantum dynamics, there is nothing in such mathematical and quantitative precision which can explain: What made quarks possible originally – since it is not at all obvious as to why energy would be inclined to self-assemble into different kinds of quarks (up, down, charm, strange, top, bottom); or, which -- if either -- of the following possibilities -- came first: Quarks or the strong force; or, how bosons actually carry, generate, and/or transmit their forces (the notion of ‘fields’ doesn’t really explain such dynamics but does provide for a way to describe behavior within whatever a field is); or, why an electron, or any particle, has the mass and charge that it does (or, they do); or, what regulates the ways in which different particles participate in the Higgs field (e.g., does the Higgs field impose properties of mass or does it merely share according to the capacity of a particle to receive what is present, and if the latter is the case, then, what structural and dynamic forces shape the process of being able to interact with the Higgs field); or, what ‘spin’ actually is; or, why there are three generations of leptons (e.g., electrons, muons, and tau) which have been discovered in the lab, and, yet, only one of those generations seems to be found in nature; or, why fermions and their anti-particles are not found in equal numbers within the universe; or, how electrons actually move – if they do – within an atom; or, what establishes the half-life of different forms of radioactive decay, as well as what regulates the way in which the weak-force induces the right number of atoms to decay (to give expression to its half-life) per unit of time; or, whether the notion of superposition is anything more than a mathematical artifact or heuristic rather than an actual ontological state of affairs (In other words, just as Gerardus ‘t Hooft’s technique for

eliminating infinities from quantum calculations might work mathematically as a way of 'renormalizing' quantum electrodynamics, nevertheless, such a technique leaves unexplained how infinities are also eliminated ontologically (presuming, of course, that the universe is mathematical in nature), and, therefore, appears to be more of a mathematical artifact than an explanation of anything existential, so too, perhaps, superposition works mathematically but provides no insight into what is taking place ontologically)?

There are plenty of ways of describing experience (and quantum mechanics is one such way that has considerable heuristic value).. However, the task of explaining the ontological significance, if any, of a given set of experiences or what makes such a set of experiences possible may well extend far beyond the horizons of description – whether mathematical, logical, linguistic, or conceptual in nature.

What makes conceptualization possible? What makes language possible? What is the relationship between thought and language? What is the nature of the relationship between, on the one hand, mathematics, logic, language, and, empiricism and, on the other hand, the nature of Reality or Being or Truth? Where does the individual fit in all of this?

The Notion of Falsification

Karl Popper was pursuing issues of truth, knowledge, and meaning when The Vienna Circle became engaged in its pursuits, and, as well, he had some contact with members of that circle. However, his journey took him along another kind of empirical path.

Among other things, he was interested in distinguishing between what he considered to be true science and pseudo-science. He was searching for a metric of demarcation that could differentiate between the aforementioned two possibilities.

Although he maintained that what he considered to be pseudo-science (e.g., Marxism or psychoanalytic thought) could be meaningful, nonetheless, pseudo-science lacked something of critical importance. More specifically, he argued that what was absent from pseudo-science was the sort of methodology that would have the potential to

be able to falsify claims being made on behalf of the conceptual orientation to which a given pseudo-science gave expression.

The term he used in conjunction with the foregoing sort of methodology was: “falsification.” In other words, unless there was a reliable way to empirically confirm or refute any given conjecture concerning a particular conceptual orientation, then, according to Popper, such conjectures were pseudo-scientific in nature – that is, such claims might be meaningful in some fashion, but they were not necessarily empirically defensible to serve as a reliable way of trying to describe or explain experience or ‘That’ which made such experience possible.

Notwithstanding the foregoing considerations, one still would like to understand: What the metric is for confirming or refuting a claim, and, how does such a metric work, and why should it be accepted as a metric? In addition, one might want to critically reflect on what kinds of experiences count as being empirical, and on what basis would one justify claiming that some given experience is, somehow, not empirical, or might not count as something that might help to counter, or resist, someone’s judgments that falsification of a given claim had been established?

Moreover, one might raise questions concerning how experiences are to be evaluated in an attempt to determine the degree to which they might be ‘empirical?’ Furthermore, one might also inquire into the nature of the instruments that are to be used in order to ‘observe’ or engage ‘empirical’ experiences, and how does one calibrate such instruments to ensure their reliability – or, counterproductively, their potential for distortion or introducing some degree of error into one’s process of trying to confirm or refute some form of instrumental (natural or invented) process?

For example, and without going into too much detail, I pursued a methodological set of practices for a number of years which was at the heart of a discipline known as “tasawwuf” (a Sufi framework which serves as a portal for the mystical dimension of Islam) and did so under the watchful heart and spirit of someone who, himself, had been authorized by his own spiritual guide to give instruction in such practices, as well as someone who was authorized to lend whatever support and serve as a locus of manifestation for whatever guidance

might be needed by an individual who had stepped onto the mystical path through a process of initiation. Among the foregoing sorts of practices was something known as “zikr” (often translated as ‘remembrance’) and which might best be described as a form of chanting different names of God or phrases from the Qur’an -- either a set number of times or in an open-ended fashion.

In addition, the aforementioned Sufi discipline also entailed a form of observance known as “chilla.” This observance might be described as constituting a complex form of seclusion in which one goes into a room by oneself for a number of days (1, 3, 5, 7, 11, 19, 21, or 40), kneels, sits, and sleeps on the floor of that room, performs a fast during the day (nothing to eat or drink from before sunrise until after sunset, and breaks the fast with nothing but bread and water), observes the night vigil, and seeks to be present to God via prayer, zikr, and recitation of the Qur’an so that one eats less, sleeps less (during periods of seclusion lasting 3 or more days, the amount of sleep one gets tends to go down to no more than 2-3 hours per day), and sees, or interacts, with other people not at all.

I have engaged in the latter practice a fair number of times involving different numbers of days. My spiritual guide observed -- usually during the summer -- a 40-day chilla during each of the 16, or so, years that I knew him prior to his passing away from this world, and I was informed by other individuals who had taken initiation prior to my arrival on the scene that the teacher had observed several more 40-day chillas prior to the time when I stumbled into something that was much more than I initially imagined, and, moreover, there were a number of occasions during the 16, or so, years when I was associated with him that in addition to the 40-day period during the summer, he would also add a 19- or 21-day period of seclusion when the university where he taught would break for Christmas/New Year vacation.

When I engaged in the practice of zikr -- the first practice noted previously -- there was one occasion during the observance of this sort of dynamic when an anomalous kind of experience took place. I had never heard anyone in the group talk about such an experience (and, as a general rule, one doesn’t talk about those experiences except with one’s spiritual guide), nor had I ever read about that sort of experience

in the books on the Sufi tradition which I had read (see the previously noted general rule).

When I first was instructed how to observe the zikr (which took place on Christmas eve during Ramadan – the month of fasting – and this was the second time that I had met my future spiritual guide), I was encouraged to begin implementing the simple set of instructions being given to me. Not long after beginning the practice, an experience came on abruptly that was quite intense.

It lasted for a number of minutes after my recitation of the zikr stopped. I never had the experience again.

For whatever reason, and partly because I didn't know what to make of the experience, I kept silent about it, not revealing – at least for a time – what had happened even to the teacher. However, a number of months later, while engaged in a private conversation with the spiritual guide, I related to him what had happened on the foregoing occasion.

He immediately told me its meaning. As is often my way, I didn't ask further questions about what he said, and, as a result, for years I have reflected on what the significance was, is, or might be concerning what he disclosed to me about the aforementioned zikr experience – not knowing whether I am hot or cold with respect to any of those deliberations, and, consequently, I have not settled on any particular understanding concerning its significance, and, yet, that experience has had a profound effect on how I have engaged life.

As indicated earlier, my spiritual guide responded to my relating of the zikr experience immediately, and he did so with three words. One might wish to ask some Popperian-like questions at this juncture.

For instance, did my teacher's brief response concerning the meaning of my anomalous experience give expression to a truth of some sort, or were his words just the components of a fabricated story that might help to keep me bound to my teacher's sphere of influence? If what he said was true, how did he know what the experience meant.

Did everyone – or, perhaps, many individuals – who was (were) initiated have the same experience at the beginning of their spiritual journey? Or, was the experience in some way unique to me?

He didn't say that he, himself, once had had such an experience and had been told by his own teacher about the meaning of the anomaly. He just said three words, and we never spoke about it again, so, how did he know – if he knew (and I believe he did) – what the experience meant.

The following account is intended to provide a possible answer to the aforementioned questions? More specifically, at some later point – after a considerable period of time had passed – I remember another private conversation which I had with my spiritual guide.

He talked about how he had come to be authorized by his own teacher to serve as a shaykh or guide for the growing number of Canadian people who were becoming interested in the Sufi path back in the late 1960s. Initially, my guide wanted his own spiritual teacher to come (at least for a visit) and serve as the spiritual guide for those who were interested in stepping onto the mystical path, but his teacher indicated that he (my teacher's guide) was too advanced in age to undertake such travels.

Subsequently, my future spiritual guide inquired with his own teacher about the possibility of a certain person serving as a shaykh in Canada who had been an instructor of Persian for my future guide when my teacher had been much younger, and the individual whom my future guide had in mind was someone who already had been authorized to serve as a spiritual guide for seekers by my spiritual teacher's shaykh. For whatever reason, this idea was also rejected, and, my future guide was told that 'we' should wait to see who God might indicate should serve as a spiritual guide in Canada.

At some later point, my future guide wrote to his teacher and indicated, among other things, that the interest in the Sufi path was continuing to grow in various parts of Canada. The return letter indicated that my future guide had been selected to serve as a spiritual guide in Canada, and, then, my future spiritual guide was provided with some instructions concerning his new duties.

After relating the foregoing events to me, my spiritual guide indicated that he felt overwhelmed with what was happening and wondered how he would be able to provide people with what they needed in the way of spiritual guidance. At this point in the conversation, he told me about an instance when he was walking

along the streets in downtown Toronto, near to the university where he taught, and as he looked at the individuals who were coming toward him, their whole lives opened up to him, and he could 'see' how such people could be helped.

Is the foregoing just a fantasy-laced narrative? Or, was it the truth, partially or wholly?

With respect to the foregoing possibilities, there was another occasion when I was speaking with my spiritual guide, and he told me about something that had happened after he, himself, had just stepped onto the mystical path. He had been visiting with his guide in Ajmer, India – where the latter individual lived – and was walking through some narrow streets on the way to a mosque.

My shaykh indicated that out of respect he would walk several steps behind his own guide as they traveled down the alley-like street. Along the journey, they passed through a group of beggars who were sitting on the side of the street.

At that point, the thought that went through my future shaykh's mind was something along the following lines. In his opinion, these people appeared to be healthy and they should be out earning an honest living rather than begging for free handouts.

No sooner did the foregoing thought go through the mind of my future guide, then, his spiritual guide stopped, turned around and spoke to him. His teacher said: "Dear One! Some of these individuals are very great ... very great," and, then, his guide turned around again and continued walking toward their destination.

The foregoing account would seem to indicate that my future shaykh's spiritual guide was aware of what was taking place within my future teacher's consciousness. This resonates with what my spiritual guide later told me about having people's inner lives opened up to him as he walked down a street in Toronto wondering how he would know how to help people with their spiritual problems.

How would Popper propose that one might put such claims to the test? What if there were ethical considerations concerning privacy and, therefore, what could be disclosed as part of some sort of a would-be public process of 'falsification' procedure might be restricted?

In other words, what if there were ways in which a given claim concerning the mystical path could be falsified, and, yet, those ways could not be made public due to ethical considerations? Is such a claim scientific?

Various corporations, research institutes, as well as D.A.R.P.A. (Defense Advanced Research Projects Agency) all allude to proprietary reasons for not disclosing the nature of the experimental work which they pursue. As far as the issue of falsification and science are concerned, is there really a significant difference between what such entities do for proprietary reasons (that are both related to monetary and security concerns) and what mystics do not disclose for, among other reasons, ethical considerations?

Or, approached from another direction, if a given corporation, research group, or D. A. R. P. A. had been exploring some sort of exotic phenomena involving superconductors, nanotechnology, synthetic biology, materials science, or mind control, and knew that even if they were to fully disclose what they were doing, nevertheless, those who were listening to what was being disclosed would, very likely, be unable to understand what was being said because the members of the audience lacked the necessary experience, training, sensitivity to, and perspective concerning such exploratory activities, and, therefore, those individuals would be unable to grasp what was being said or, alternatively, might abuse whatever those individuals might be able to grasp of that which was being said and, in the process, cause harm to themselves or others.

Who must be brought into a given falsification process in order for it to be considered a valid dynamic? Must everyone be able to understand the nature of a falsification procedure in order for something that is being subjected to such a procedure to be considered as, potentially, scientific?

Einstein and Bohr engaged in a number of exchanges (beginning in 1927) that transpired during various Solvay conferences concerning Einstein's attempt to show that there were hidden variables at work in quantum mechanics that posed problems for Bohr's theory of complementarity with respect to what the latter individual considered to be an appropriate approach to quantum phenomena. In effect, Einstein proposed several theoretical ways of trying to falsify aspects

of Bohr's position, but, on each occasion, Bohr was able to effectively counter Einstein's attempt to falsify Bohr's claims concerning, among other things, the issue of complementarity as well as what Bohr considered to be the relationship between classical physics and quantum phenomena.

Does the foregoing mean that Bohr was right and Einstein was wrong concerning the issues they were discussing? Or, notwithstanding Einstein's considerable intelligence, perhaps Einstein was just not sufficiently knowledgeable, creative, or talented in the right way to be able to develop a form of falsification concerning Bohr's perspective that would be tenable.

There are reasons why second-graders are not taught calculus. Perhaps, similarly, there are reasons why mystics interact with people according to the capabilities and readiness of the latter individuals to engage in a certain kind of learning process.

In conjunction with the foregoing considerations, the issue of falsification depends on the capabilities, experiences, training, knowledge, insight, understanding, creativity, and talent of the individual who is seeking to falsify a given claim. Presumably, whether, or not, something is considered to be scientific would be a function of the same sorts of conditions that surround the issue of falsification, and, consequently, one might suppose that just as one could speak about pseudo-science as being the result of an inability to come up with methods that might be capable of falsifying certain kinds of claims, so too, one might be able to speak about systems of pseudo-falsification which are unable to engage in legitimate forms of falsification due to a lack of capability, experience, training, knowledge, insight, understanding, creativity, and/or talent.

Many so-called scientists engage in processes of pseudo-falsification because, among other things, they seek to apply material/physical methods to phenomena which might not be a function of material/physical dynamics. As suggested earlier, such individuals are engaged in a kind of behavior that resonates with the activities of a drunk individual who, at night, is looking for lost keys beneath a light standard, but this is being done not because the keys were lost beneath, or near, that light standard, but because the light

from the standard is the only tool the drunk can access as a way of trying to search for lost keys.

Observation, co-ordination, focus, memory, logic, reason, critical reflection, and the capacity to ask appropriate questions are all off-line for, or inaccessible to, the drunk individual. And, as an astute practitioner of Zen Buddhism once noted, the dynamics of the mental processes of most people are like a barrel full of drunken monkeys, and, therefore, many of the tools which such individuals need to properly explore their own existence is inaccessible to them – irrespective of whether, or not, they call themselves “scientists.”

In addition, there were times during seclusion when an anomalous sort of experience took place.

No claims are being made here about the significance, if any, of such anomalous experiences. However, an obvious set of questions to ask are Popperian sorts of queries – namely, were such experiences merely a form of experiential meaningfulness or were they empirical evidence connected to an aspect of Reality or Being which was not necessarily material, physical, or even biological in nature?

How would one go about falsifying the claim that the foregoing sorts of experiences gave expression to empirical realities which were more than just meaningful and had something to do with the nature of Reality and one’s relationship to such Reality? What metric should be used? What justifies such a metric?

If one uses material instruments to study what might be a non-material phenomenon, then, what is the value of such an exploration? Those instrumental readings might reveal some sort of biological or material correlate that is associated with such experiences, but are those kinds of biological or material dynamics an effect, a cause, or some sort of complexly-related correlate involving those kinds of anomalous experiences?

Someone might wish to insist that without a way to chart the nature of experiences according to one, or another, kind of metric, then, one can’t really refer to what is taking place as either empirical or observational in nature. One could agree with such a consideration, but one also might note that one should not become limited in one’s empirical quest in the the manner a drunk man had became ensconced in a closed, problematic loop of logic which induced him to look at

night for his lost car keys beneath a light standard because this was his only source of available light which he believed could locate those keys and not because his keys had been lost anywhere near the light standard.

Many things occur during the practice of spiritual seclusion. Some of them are physical, and some of them are biological, and some of them are sensorial, and some of them are conceptual, and some of them have to do with memory, and some of them have to do with assessments concerning what is transpiring in conjunction on-going existence, or with one's past life, as well as in relation to future aspirations, and some of those occurrences have to do with dreams, while other aspects of those experiences are emotional in nature, and some of them are motivational in character, and some of them don't seem to fit into any of the foregoing categories.

All of those experiences provide one with food for thought and topics for critical reflection. One has to deal with doubts, fears, past mistakes, fantasies, uncertainties, confusions, physical discomforts, and tiredness, as well as forces of existential destabilization, temptation, or loss of focus, and, in addition, one has to keep up with maintaining ritual cleanliness, prayers, zikr (one is often given something to recite a hundred thousand or more times) during however many days one has made the intention to observe.

Following some of the longer periods of seclusion (lasting three or more days), one would go through a debriefing session with one's spiritual guide. Questions would be asked, and answers would be given.

If something of an anomalous nature took place, it would be discussed to some degree. If indicated, an explanation, of sorts, would be given by my spiritual guide.

There were at least two modalities of empirical charting that were taking place during the foregoing session of debriefing. On the one hand, there was my own set of observations and recollections that were based on whatever my experiences might have been during the period of seclusion, and, on the other hand, there was the set of observations which arose as a result of my spiritual guide's engagement and response to my account of the aforementioned set of experiences.

Sometimes the observations of my spiritual guide were difficult to hear for whatever reason and had to do with my need for a spiritual path to begin with. Sometimes his observations were comforting, or reassuring, and, occasionally, intriguing.

Learning would take place Understanding would become modulated and more nuanced.

My orientation toward myself and my relationship with Reality, Being, or Truth would shift to varying degrees and in different directions. Aspects of character would change in subtle, but identifiable and constructive ways.

All of the foregoing considerations were metrics of one kind or another. Naturally, one could ask – in Popperian fashion – were the foregoing sorts of changes meaningful but cosmetic, or were they substantial and, therefore, linked to important dimensions of Reality, Being, or Truth?

According to the Sufi way of understanding, each human being has a variety of instruments within him, her or them. Aside from the mind, there is also the heart, *sirr*, *kafi*, and *ruh* or spirit (all of which are mentioned in the Qur'an, and, none of which are biological in nature – although they have their biological correlates), and each of the foregoing modalities of instrumentation has different ways of engaging and understanding various dimensions of existence.

My spiritual guide also possessed the same set of internal instruments as noted above which, by the Grace of God, had been assisted to become properly purified and calibrated through a combination of his own spiritual practices, together with guidance and support from his own teacher. The foregoing sort of tradition or lineage of guidance can be traced back through a long line of teacher-student relationships to the Prophet Muhammad (peace be upon him), and the latter individual's quest for seeking the truth about the nature of his relationship with Reality or Being or Truth was aided by similar process of purification and calibration.

In a sense, the Sufi path is a process which challenges a seeker to acquire closer and closer affinity with the spiritual resonances which are at work in one's guide or teacher. Said in another way, the Sufi path is about getting into phase with, or achieving coherence with, the spiritual orientation of one's guide, and this is a process of calibrating

the different instruments within an individual through becoming attuned with the instruments within one's teacher.

There are many way-stations along the foregoing path. Not everyone is successful in completing that path, but, on the other hand, whatever portion of that journey is completed provides a wealth of experiences which can be of benefit to an individual and help them to become more attuned to existence than otherwise might be the case.

Of course, there is a certain amount of caution which should be mentioned in conjunction with the foregoing considerations. One aspect of such caution has to do with the fact that not everyone who claims to be a spiritual guide is authentic, just as not everyone who claims to be an expert in some facet of science or medicine is what such an individual claims to be – indeed, some of them are quite corrupt and ignorant.

After my first guide passed away from this world, I became involved with a second individual who claimed to be a spiritual guide because I felt that there was more that I need to learn and understand and change. Over a period of time, I acquired a variety of evidence which substantially – and not just marginally – demonstrated that he was a spiritual charlatan.

Although this individual was not an authentic guide of the mystical path, nonetheless, as a result of my encounters with him, there was much I learned about myself, other people, the world, life, and, oddly enough, the Sufi path. Consequently, while that period of my journey was, in many ways, problematic and traumatic, nevertheless, when disengagement from the foregoing individual took place, it was like, suddenly, sailing away from a very turbulent and destructive storm which entailed experiences that were not pleasant to have experienced, and, yet, they provided an array of opportunities for considerable learning to take place and, as well, helped to deepen and broaden by understanding of a variety of issues.

Of course, upon reading the foregoing account, one might ask another very Popperian-like question – namely, how could I be certain that my first guide wasn't also some sort of spiritual fraud? Perhaps, the easiest way to respond to such a possibility is to indicate that over the course of imbibing experiences, one acquires a sense of taste

which better enables one to differentiate between quality wines and their imitation.

One way of referring to the foregoing sort of development is to speak about the importance of experience and engaging existential events through a framework of experience which is constantly growing in constructive ways – for oneself and for others. The Sufi word for this is “dhawk” or taste.

Every experience has its phenomenological taste or flavor. The Sufi path is about developing a sense of dhawk or taste which enables one to discern the difference between that which is spiritually of value and that which is not of such value, and, in its own way, this is no different from what a scientist does over the course of a career – develop a sense of taste for, on the one hand, what might be empirically productive and constructive and, on the other hand, what might be empirically problematic and a waste of time.

Some claims made by an alleged mystic are subject to falsification. For example, as alluded to earlier, when my spiritual guide passed away, I felt the need for continued spiritual guidance, and an opportunity – which later turned out to be too good to be true – came into my life.

Slowly -- over a period which lasted for a number of years and took place in a very subtle, but (ultimately) manipulative, manner, a number of events took place that finally brought me face-to-face with an individual who was reported to be a Sufi shaykh or spiritual guide. On the surface, this individual checked all the boxes that one might consider to be important.

More specifically, he: Spoke about, and would refer to, the teachings of the Qur'an on a regular basis; was familiar with the Hadiths (sayings of the Prophet); had a wealth of knowledge concerning the hagiography of different luminaries of the Sufi path; could provide all manner of information and insight into questions which were addressed to him concerning the Sufi path; he was adept at tying Sufi teachings to the issues and problems that populated the everyday lives of people, and, in addition, he was not only able to do all of the foregoing on a day-after-day basis, but he did so without repeating himself (telling the same stories, or reciting the same Hadith or Qur'anic passage, but, as well, he was able to do so for hours on end

without losing focus. Much of what he said, I already knew as a result of the 16 years, or so, that I had spent in close proximity to my previous guide, and, therefore, somewhat ironically, the understanding with which I possessed when I came to that man initially appeared to serve as a confirmation, of sorts, concerning claims that were being made about the legitimacy of that individual as a spiritual guide ... in a sense, my own understanding was being leveraged against me to provide credibility where none necessarily existed – after all, I had familiarity with and understood, to a degree, such things, but I was not a spiritual guide.

In addition, he had a great sense of humor. Furthermore, he also exuded considerable charisma, and to complement that charisma, he had a talent for making people feel comfortable and safe in his presence, while, simultaneously, being able to read them in remarkable ways.

A number of anomalous experiences took place which added to the foregoing considerations. As a result, eventually, I took initiation through him.

I spent a lot of time with my first guide. There were many activities in which we both were both involved, and, as well, I went on several journeys with him overseas for a number of weeks, and as a result, I got to see him under a wide variety of conditions.

I spent much less – but, still, a considerable amount of -- time with my second “teacher”. Therefore, there were many things transpiring in conjunction with my second “teacher” that were unknown to me and about which I only gradually – over a period of years – came to learn.

Though I had spent much, much more time with my first teacher than I spent with the second “teacher”, and although I had gone through many more kinds of situations with my first teacher than had been the case with my second “teacher”, I had never encountered any evidence which indicated that my first teacher had not spoken the truth in everything which he had said to me or which had been said in my presence – words which – even without being actively checked – could have been falsified, in different ways, by subsequent events.

The second “teacher” was a different matter. Although the discoveries came to light only very slowly and, often, under conditions which were quite problematic in a variety of ways, nonetheless, the

evidence eventually was forthcoming which indicated that he had lied about a whole host of issues and, simply, was very good at shutting down avenues of communication which might have brought to light what had been happening much earlier than, unfortunately, was the case.

The process of falsification can be quite complex and require many years to demonstrate. An array of experiential components might have to be gathered together, reflected upon, and, then, placed in juxtaposition to one another in just the right way in order for one to be able to have a chance of “seeing” or understanding what is transpiring.

The Origin of Ideas

Let’s switch gears a little bit and put aside considerations of mysticism. For example, let’s consider the coming into being of the PCR (Polymerase Chain Reaction) protocol (as the creator of the protocol himself notes, the aforementioned protocol cannot be used as a test for disease, and, moreover, he considered the notion of a quantitative approach to the PCR protocol to be oxymoronic).

In the first chapter of the book: *Dancing Naked In the Mind Field*, Kary Mullis relates how the idea of PCR – for which he was awarded a Nobel Prize – came to him. He was driving at night from Berkeley through some mountains in California on his way toward Anderson Valley, and he was thinking about various aspects of molecular biology that touched on the problem of finding a way to be able to identify particular sequences of DNA amidst millions of molecular candidates, and, then, all of a sudden, he saw the solution to the foregoing problem, and during the course of the aforementioned chapter, he explains a little about how the PCR methodology works – which served as an elaboration of the insight or intuition that came to him during his late-night drive through a mountain range in California.

Where did this solution come from? Was it the result of some sort of neurological computation, or was it a function of another kind of dynamic, and how would one falsify whatever claim one might like to make concerning the origins of such an idea?

The melody and words for “Annie’s Song” came to John Denver during a ten minute ride on a ski lift. What brought that song into being, and how would one go about falsifying whatever claim one might make concerning the origins of that song.

Johnny Mercer, a co-founder of Capitol Records as well as a member of the song writer’s hall of fame once spoke about how he wrote songs. He said that all he did was reach up and pull them down.

Was the foregoing a metaphorical way of speaking about the process of song creation? Or, was the foregoing sort of response the best way he had to describe what happened when a song emerged through him?

August Kekulé was an organic chemist who in 1862 was thinking about why aromatic compounds such as benzene (C^6H^6) were so stable given that, normally speaking, in order for carbon and hydrogen atoms to establish stable relationships, each carbon atom tended to be associated with many more hydrogen atoms, as is the case of methane, CH_4 . Why weren’t there, say, 24 hydrogen atoms connected to the six carbon atoms in benzene.

Kekulé published his solution to the foregoing problem three years later. It involved a ring structure.

Some 25 years after the foregoing discovery, he indicated that the solution to the problem came during a brief sleep into which he had slipped while sitting near a fireplace. During that sate atoms slithering about like snakes, some of which appeared to be biting their own tails. The image in the daydream resonated with the aromatic problem in which he had been immersed.

While the foregoing experience resonated with issues with which Kekulé had been conceptually grappling, sometimes the imagery in dreams is less metaphorical and more direct. For example, Jack Nicklaus, who has won more major golf titles than anyone else in the history of the PGA tour, is reported to have had a dream fairly early on his career which showed how to hold his hands on the club in a different manner, and when he changed his grip on his clubs in the manner indicated in his dream, he was able to take ten strokes off his score for a round of golf,

From where did the imagery of the golf changes come in the dream? Did some part of Nicklaus' brain generate the idea, or did the idea come from elsewhere, and if the latter is the case, then, what was the source of that idea and how did it come into being?

Another example of a, more or less, straightforward experience -- as opposed to something which is metaphorical in character in relation to some sort of problem with which one has been dealing as seemed to be the case in conjunction with Kekulé's dream -- involves the Russian chemist Dmitri Mendeleev.

Despite considerable reflection and attempts prior to 1869 by chemists around the world to organize the known atoms into some sort of relational configuration with one another, no one had succeeded in doing so. Mendeleev had been among the foregoing group of chemists who had struggled with finding some set of themes around, or through, which the known atoms could be arranged according to one, or more, chemical principles.

One night, Mendeleev had a dream during which a table appeared which showed how the known atoms could be organized according to various chemical properties. Spaces were even left in the table for various atoms which would be subsequently discovered.

Did some sort of neurological computation take place which generated the foregoing image, and, if so, then, what was the precise nature of that computation in biochemical terms and what regulated such a computation? Or -- as also was possibly the case with respect to the dreams of Kekulé and Nicklaus -- were the images a function of something other than brain functioning?

One of the courses that I taught had to do with biological and psychological development. There was a section of those courses during which I introduced the students to some rather remarkable research concerning twins.

For example, one, particularly interesting study involved what has come to be known as the "Jim twins" -- although this set of twins is, by no means, an isolated case which provide evidence for some seemingly inexplicable aspects of the lives of some twins which overlap with one another despite years of separation and no contact during that period of separation. The Jim twins were separated from one another at around four weeks following their births and did not

come back into contact with each other for another 39 years, and, yet, the number of data points in their lives were often the same in many instances.

Somehow, they each had come to be given the name Jim after they were separated from each other. They each had been employed as sheriffs and firemen, and they each had, first married a woman by the name of Linda, divorced their wives, and became married to a woman by the name of Betty.

They each had a son with the name “James,” and the middle name of each of their sons was the same except for the spelling. More specifically, the middle name of the son of one Jim was “Alan”, while the middle name of the other Jim’s son was “Allen.”

Each of the two Jims had had a dog by the name of Toy when they two individuals were young. They both drank the same brand of beer and smoked the same brand of cigarettes, as well as owned Chevrolets that were light-blue in color.

They each experienced migraine headaches and bit their finger nails. They each died from the same illness died on the same day.

Their adult heights and weights were the same. In addition, they possessed the same IQ, displayed the same pattern of brain waves, as well as exhibited the same habits throughout their lives (such each left love notes for their wives at various locations in their respective houses), and also displayed a style of handwriting which was identical with one another.

Just prior to their reconnecting after 39 years, they each had the same compulsion. This compulsion involved the desire to build a white fence around a trees which were in their respective yards.

There were some differences between the two individuals. One of the two Jims had divorced his second wife (named Betty) and married for a third time. In addition, the two individuals parted their hair differently.

Presumably, there were other differences as well. Nonetheless, what stands out is the manner in which their lives shared so many identical features.

If one likes, one could refer to all of the foregoing identical features as being coincidences – that is, they are just random

phenomena. However, even if one were to assume that such events are entirely random in nature, one has no way of proving that this is the case.

Are the lives of two aforementioned individuals entangled in some fashion? If so, what is the nature of such an entanglement phenomenon and what regulates that kind of a dynamic?

Are the 'Jim twins' some sort of variation on entanglement phenomena which might have shown up in the dreams of Kekulé, Nicklaus, and Mendeleev in which the different dreams gave expression to other aspects of reality with which each of the foregoing three dreamers had become entangled – each in his own way?

If people's reports are to be accepted – and there is no evidence that has been forthcoming which indicates why this should not be the case – then, while the foregoing phenomena have taken place and reported, we have no account that can explain what is going on. All we have are descriptions, but if one wishes to advance a perspective which is referred to as an explanation, then, that explanation will have to provide a plausible, defensible way of accounting for what is transpiring in such phenomena, and, moreover, if we are playing by Popperian rules, then, that explanatory account must be capable of demonstrating the property of falsifiability.

Transplant Mysticism

In 1988, Claire Sylvia, was the first individual in New England to be a recipient of a heart-lung transplant. The procedure took place in the Yale-New Haven Hospital.

Following the operation, a number of anomalous conditions began to surface. For instance, she was asked by a journalist that if she could have anything she wanted, what would it be, and she indicated that she had been dying for a beer even though prior to the operation, she disliked the taste of beer.

Prior to the operation, she disliked chicken nuggets. Following the operation, she liked them, and her first meal after leaving the hospital consisted of chicken nuggets.

Before the operation, she disliked green peppers, and if she found them in here salad, she would immediately remove them from her plate. Yet, after the transplant operation, she no longer disliked them.

Changes were noted in her behavior as well. When the way in which she approached life was analyzed following the operation, and, then, compared with the sorts of behavioral tendencies toward which she was inclined prior to the operation, there were noticeable differences.

For example, before the operation, she was not an assertive individual. After the operation, she became much more assertive.

In addition, prior to the transplant operation she tended to be a cautious person who shied away from activities involving speed or which were adrenalin-generating. Once the aforementioned procedure was completed, and she was released from the hospital, Clair began to seek out activities that were speed oriented or adrenalin-generating.

At some point following the operation, she had a dream. In the dream, she is spending time with a young, wiry, tall man with sandy-colored hair.

For some reason, she feels that the man's first name is Tim and his last name might be Leighton, but she is uncertain of this. Consequently, Claire just refers to him as Tim L.

In the dream, she starts to withdraw from the young man. She informs him that she has to leave because she is getting together with some acrobats.

However, as she begins to go, she feels as if she has some unfinished business with the young man. She returns, and the young man appears to be happy that she has returned to him.

They kiss. During this aspect of things, Clair feels like she is deeply inhaling some facet of Tim into herself. The experience has a sense of permanence about it – as if Tim would be with her forever.

Quite a few years after the operation, Clair came across an obituary of the her donor. Apparently, following her operation, she had overheard the fact that her donor was an 18-year old young man who had been killed during a motorcycle accident.

The information in the obituary matches up with what little she knows about the young man. The man's name turns out to be Tim Lamirande.

The foregoing name resonates with her having referred to the young man in her dream as Tim L. Eventually, she follows up on the information in the obituary, and makes arrangements to meet with Tim's family.

She learns from the family that Tim liked beer. He also loved both chicken nuggets and green peppers.

Although the foregoing kind of phenomena are not common, they do occur. For example, there was one study conducted in Austria during 1992.

The foregoing study took place four years following the transplant operation of Claire Sylvia. However, Claire did not release her memoir (*A Change of Heart*) concerning her post-transplant experiences until 1998.

The foregoing Austrian research established that there were three subjects among the 47 total number of participants in their study who had provided information indicating that the three subjects had each undergone significant personality changes following their transplant surgery. Another research project – which occurred in 2000 and was conducted by a neuropsychologist – had identified ten recipients in the study who underwent personality changes which were closely aligned with what already was known about the personalities of the heart donors.

An Israeli study that took place in 2004 also investigated the extent to which participants involved in their study might have undergone some sort of personality change following heart-transplant surgery. They discovered that about one-third of the 35 participants reported personality changes in the transplant recipients which corresponded to characteristics of in their respective donors.

In 2020, an article appeared in the journal, *Medical Hypotheses* which was authored by Mitchell Liester, a psychiatrist who was affiliated with the University of Colorado. The article was an overview of a variety of previous research which all had been concerned with the issue of personality change following heart transplants.

During the course of his review process, Dr. Liester had been able to compile a considerable amount of data which able to lend a substantial degree of credibility to the idea that changes in the memories, tastes, likes or dislikes, and fears of transplant recipients often reflected characteristics that were prominent in the lives of their donors as well. In addition, the aforementioned review process also indicated that many heart transplant recipients developed a sense of identity concerning themselves which departed from how they had thought about themselves prior to the transplant procedure and, yet, resonated considerably with the sense of identity which donors had concerning aspects of themselves.

Many academicians and medical clinicians tend to engage the foregoing sort of research with a great deal of skepticism. Among other things, they point out that there is no known dynamic or mechanism through which such changes might be transmitted from donor to recipient.

In other words, such individuals use their ignorance as the metric for deciding what can and cannot be true even when they are confronted with a fair amount of research, studies, and data, all of which suggests – rather strongly, that something is taking place among various transplant recipients for which the alleged experts have no explanation.

The “explanations” which frequently are offered by “experts” to account for the foregoing sorts of evidence tend to be rooted in an array of possibilities. For example, some individuals might wish to argue that transplant recipients could be impacted by a number of heavy-duty drugs that are given, for example, to suppress the rejection of the foreign transplant.

Such drugs are capable of inducing people to become aggressive, impulsive, or angry. Moreover, the foregoing sorts of drugs can induce people to hallucinate, suffer from bouts of sleeplessness, and alter the levels of energy to which they might feel they have access.

In other words, when one takes into consideration the sorts of side-effects which are associated with the foregoing sorts of drugs and combines the impact which such drugs have been documented to have on various individuals, and, then, combines such possibilities with the fact that an individual has been ill for a long time prior to the

transplant operation and also –following the operation – has been trying to adjust to the effects which a major form of surgery can have on an individual, then, perhaps, one should not be surprised that a person feels like their personalities, likes, dislikes, sense of taste, and sense of self might undergo significant changes. However, the foregoing sort of attempt to explain what is going on with donors seems more like a case of trying to explain things away than it serves as a legitimate form of explanation that is capable of accounting for why the post-surgery characteristics of a recipient reflect and resonate with specific characteristics of a donor.

To the best of my knowledge – and, of course, I am not a medical clinician – I am unaware of any immunosuppressant drugs which have the capacity to induce a desire for beer, green peppers, chicken nuggets in a transplant recipient where none existed in a person previously, and, yet, such inclinations were capable of being documented to have been present in the donor prior to their death. Such an attempt to explain away a phenomenon seems more like a case of gaslighting than it serves as a reasonable way to explain what is going on.

Drugs given during and following transplant surgery can have many side-effects. The task is to tie those side-effects to the specific characteristics of a transplant recipient that reflect or closely resonate with characteristics of a transplant donor.

The foregoing research speaks in terms of specific: Likes, dislikes, tastes, memories, fears, dreams, inclinations, interests, and personality characteristics. This sort of specificity is not at all present in the list of general side-effects that are associated with the taking of this or that pharmaceutical prior to, during, or following a transplant operation.

If one could establish that a given drug induced a desire for chicken nuggets or green peppers, then, such attempts at explaining away the phenomenon of recipient changes that can be tied to specific characteristics of the donor might have some experimental legs. But, this is not the case, and people who offer them are like little children who try to whistle their way past an isolated grave yard in the dark of a stormy night because they are afraid of what they don't know.

Another attempt to explain away the donor-recipient linkage phenomenon has to do with the notion of cellular memory. In other

words, such attempts are rooted in the hypothesis that there are specific memories which are stored in, for example, RNA and DNA structures within cells or which, somehow, exist as a result of various kinds of biochemical or epigenetic dynamics that are present in cells and, consequently, might serve as a source for transferring specific aspects of personality or identity or memories from transplant donor to transplant recipient.

Like the previous perspective that sought to explain away the transplant phenomenon as a function of the side-effect of drugs, the notion of cellular memory lacks specificity. Having a general hypothesis is not enough, but, rather, one must be able to provide a set of biological specifics that can show how memories can be stored in cells and, then, transmitted from a donor to a recipient, and no one, to date, has shown how cellular memory might work in specific ways.

The foregoing considerations do not demonstrate that hypotheses concerning cellular memory are not possible. Instead, the point is that such hypotheses lack specificity and, consequently, are devoid of any clear sense which would show how such hypotheses might be falsified in a way that would enable one to understand how cellular memory works.

A third approach to the problem of trying to explain the transplant phenomenon makes reference to the significant system of neurons which are present in the heart. This network of neurons is referred to as the “Intracardiac Nervous System.”

Again, the problem of specificity rears its ugly head. While the existence of an extensive network of neurons can be, and has been, shown to exist within the heart, no one has been able to prove what that network of neurons does or whether what it does has anything to do with serving as a venue for giving expression to an array of specific: Likes, dislikes, tastes, interests, emotional orientations, specific life memories, or behavioral characteristics that are capable of being sustained across the rigors of transplant surgery and would be capable of assuming some sort of dominance (as is often the case) relative to the: Likes, dislikes, tastes, interests, emotional orientations, specific life memories, or behavioral characteristics of a transplant recipient

In addition to the foregoing sorts of considerations, one is also faced with another problem when trying to provide an account of the

transplant phenomenon. More specifically, why don't: Pharmaceutical side-effects, cell memory, and/or the Intracardiac Nervous System come into play in every case of heart transplant?

Trying to account for the nature and extent of specificity that exists in certain features of personality, behavior, emotions, and identity which appear to overlap in conjunction with a transplant recipient and the donor from which an organ is derived is one issue. Accounting for why any particular proposed explanation which one favors does not explain why there are many cases of heart-transplant surgery in which there seem to be no discernible changes in personality, behavioral tendencies, or sense of identity, and this absence of changes constitutes a very different – albeit, possibly, related – set of issues.

Remembering Planaria

More than 50 years ago, I got a teaching job in psychology because, for some reason, the guy interviewing me raised the topic of planarians, and I mentioned the work of James McConnell. The interviewer was somewhat taken aback because, at the time, even though McConnell's research had caused something of a stir in various academic and research circles, nonetheless, his work was not all that well known, and, as well, the people who did know about it, thought McConnell was deep in the weeds when it came to understanding the dynamics of memory.

McConnell maintained that memory was, somehow, stored or encoded in special forms of RNA molecules rather than through, say, electrical circuits that were associated with synaptic structures (which is the mainstream model). In 1960, he ran an experiment in which planarians or flatworms were classically conditioned to exhibit a certain kind of bodily behavior (scrunching) when exposed to a flashing bright light, and, once conditioned in the foregoing fashion, those flatworms were killed, ground up, and fed to a second group of flatworms.

McConnell wanted to see if the new generation of flatworms would exhibit the same behavior which had been established through classical conditioning in the first generation of flatworms. He was of the opinion that if the aforementioned behavior of scrunching

occurred when the second generation of flatworms were exposed to a flashing bright light (the same stimulus that had been paired with the unconditioned behavior – scrunching – to produce a conditioned reflex in the first generation of flatworms), then, this experimental outcome would serve as evidence that memory was stored in something other than the synapses in a neural network, and his candidate for this alternative form of memory storage – which, in the context of his flatworm experiment, would be the memory of a conditioned reflex – was some form of RNA.

McConnell claimed that the foregoing experiment had been completed successfully. However, one of the problems which arose in conjunction with the foregoing hypothetical contention was that no one else seemed to be able to replicate his experiment, and, as a result, those claims tended to be rejected.

There is a further problem, however, hovering about the aforementioned McConnell experiment. More specifically, even if other researchers had duplicated his experimental set-up and found that the scrunching behavior occurred in the second experimental generation of flatworms when they were exposed to a flashing, bright light, this would not have proven McConnell's claim that the dynamic responsible for the maintenance of memory across the two experimental generations had to do with some form of RNA.

In addition, even if it were the case that RNA was somehow involved in memory storage, McConnell would be faced with a further difficulty. In other words, even if some sort of RNA structure were responsible for the memory dynamic phenomenon, he hadn't discovered what the nature of that structure was or established how that RNA-based memory dynamic actually worked.

Irrespective of whether, or not, McConnell's planarian experiments actually worked as he claimed they did, his work was important because he was among the first individuals to suggest that memory was not necessarily a function of syntactic dynamics but might have something to do with cellular processes. RNA was only one candidate, and, therefore, even if it were not involved in memory storage, there were other possibilities.

McConnell's efforts – whatever their ultimate merit might be – inspired a considerable amount of subsequent research into the issue

of memory-transfer. Over a period of years, more than 200 studies had been conducted by an array of investigators into the issue of memory-transfer, and this research was not only conducted in conjunction with planaria, but, as well, it involved: Honey bees, octopi, kittens, rats, and a number of other species.

The specific character of the dynamics that might be involved in memory-transfer continued to remain elusive. Nonetheless, there were enough intriguing results in the foregoing modes of research, that the issue of memory-transfer could not be dismissed.

Flash forward a number of decades, and new research – for example, that of Michael Levin, a biologist at Tufts University -- also was pursuing a possibility which resonated with aspects of McConnell's work – namely, that the dominant paradigm of the day which held that memory formation was a function of the forming and strengthening of synaptic connections within a context of a network of neuronally-based electrical circuits might not be right – or, at least, might not be the whole story.

Evidence had been generated through a number of different experimental venues indicating that one could destroy synaptic structures, and, yet, certain kinds of memories would persist. There were other experimental results which suggested that memory could exist outside of neurological structures – i.e., the brain.

For example, Michael Levin also worked with planaria or flatworms. His research group trained planaria to seek food in a particular sector of a Petri dish.

These planaria were, then, decapitated (i.e., their brains were removed). Fortunately, planaria have the capacity to regenerate parts of their bodies that go missing – like decapitated heads.

When the new heads had been fully regenerated, their feeding behavior in a Petri dish was tested. The once-decapitated organisms behaved as if they had never undergone such an ordeal – their memories of feeding behavior were intact – but planaria who had never been trained to go to a specific area of a Petri dish in order to feed did not exhibit the trained behavior.

So, to what non-brain facet of the planaria had the decapitated memories been transferred? One possibility is that the memories had

not been transferred anywhere because – contrary to popular opinion – they did not necessarily exist in the brain to begin with.

What About Somatids?

In this regard, one might consider the work of Gaston Naessens who was born in France but, eventually, immigrated to Quebec, Canada in order to continue his work. Naessens had invented a microscope in the 1940s that operated on principles of optical dynamics which were not understood at that time and that, still, are not fully understood.

He used his device to study aspects of life down to the nanoscale and which, unlike, the electron microscope, did not require organisms to be killed in order to be observed. One of the microscopic aspects of life which Naessens studied concerned what were termed “somatids” (little bodies).

Naessens believed somatids were more fundamental to the dynamics of life than cells were. The foregoing perspective actually resonates intimately with the entities which Antoine Béchamp had studied back in the 1850s and forward – to which the latter investigator referred to as “microzymas” and which that nineteenth-century scientist also considered to be much more fundamental to the dynamics of life than were cells.

Both Naessens (in the case of somatids) and Béchamp (in the case of microzymas) maintained that when organisms die, the somatids and microzymas continue on. However, somatids and microzymas might not necessarily be referring to the same thing, but, nonetheless, they might be related to one another in fundamental ways.

For purposes of the previous discussion, the reason for mentioning Naessens is that he actually had done some experimental work with transplant dynamics involving the coloring (white or black) of different rabbits. He discovered that when somatids from the donor rabbit were, first, transferred to the recipient rabbit prior to the actual transplant, he was able to transplant skin from a white-colored rabbit to the skin of a black-colored rabbit, and that the transplant would work successfully (i.e., white colored fur would grow where only black-colored fur had been present previously) without any form of

rejection dynamics taking place, and without any adverse impact on the recipient rabbit, but if somatids from the donor rabbit were not, first, transferred to the recipient rabbit prior to the transplant procedure, the transplant would not work.

On the basis of more than 70 years of rigorous research with a technological advanced tool (namely, the somatoscope), Naessens discovered that each kind of cell which he explored had its own species of somatid. Moreover, he discovered that each species of organism that he studied possessed kinds of somatids which were unique to that species of organism and different from the somatids which existed in other species of organisms.

The foregoing considerations suggest the possibility that memory might not reside in synaptic structures that operate within electrical circuits that run through a network of neurons. Furthermore, conceivably, somatids might not be so much a form of memory storage as they are transducers of memory which are stored elsewhere.

The foregoing possibility is offered not because it is necessarily correct. It is offered as an alternative way of thinking about the idea of memory transfer which is not rooted in synaptic dynamics, or electrical circuitry, or molecular structures (such as DNA or RNA or even proteins).

There are some investigators who speak in terms of epigenetic memories. In other words, they maintain that genes can be turned on and off according to the metabolic algorithms which are epigenetically manifested in any given set of environmental circumstances and that such epigenetic dynamics are set in motion through the way the environment impacts an organism.

However, organisms are not just a function of environmental forces. Organisms are also a function of the degrees of freedom and constraints that are built into the organism with respect to how those environmental forces will be engaged, and, as a result, the response of the organism will give expression to a complex form of synergistic interaction between the environment and the epigenetic capabilities of a given organism.

Somatids and microzymas might serve as different kinds of transducers which mediate between some other level of reality – lets refer to this level as a sort of ontological cloud or field of order (isn't

this what memory is – a form of order or structure or dynamic) that has a relationship with organisms via such transducers in the same way that computers can have a relationship with their own form of memory cloud as transduced by the operating system which regulates the electronic circuits contained in the computer. These somatid transducers – which according to Naessens are unique to different cells, tissue-types, and species of organism – could serve to generate (or serve as mediators/transducers for) the appropriate form of epigenetic dynamics that would synergistically connect one aspect of reality (the environment) with another aspect of reality (an organism).

Although researchers like Michael Levin have demonstrated that one does not necessarily need a brain in order to sustain memory, and although the idea of epigenetic memory – which operates across all aspects of an organism and not just through brain or brain-like structures – could serve as a way of describing what might transpire during any given interactional dynamic between an organism and the environment in which that organism is operating, nonetheless, both Levin's approach as well as the epigenetic memory perspective both suffer from the same problems. Neither of the foregoing possibilities actually explain what memories are or how they work.

The somatid framework doesn't either explain what memories are or how they work. On the other hand, what the somatid orientation does offer is food for thought, and part of this food for thought is that trying to understand the dynamics of memory via synaptic structures, or extra-neurological functioning (Levin's work), or epigenetic memory is, possibly, to be trying to solve a puzzle when not using the right pieces and, as such, the somatid approach might offer some avenues of exploration that are of heuristic value in engaging the puzzle of memory transfer, whether in relation to heart transplants or decapitated planaria or epigenetic dynamics.

All of the foregoing considerations entail problems concerning the issue of falsifiability. However, as noted earlier, the notion of falsifiability is ensconced in its own set of problematic issues.

Chief among these latter problematic issues is that which has to do with, on the one hand, what one considers to be an appropriate metric for determining whether, or not, something has actually been falsified (and, here, one is dealing with how one goes about

constructing the idea of a “fact”), and, on the other hand, whether, or not, one has the sort of methodological tools which are appropriate for a given task (e.g., how does one evaluate non-physical phenomena with tools and methods which are thoroughly physical in nature). If a person’s process for going about engaging the issue of falsifiability are entangled in inappropriate tools, methods, forms of analysis, systems of critical reflection and evaluation, then, such an individual really will be in a dynamic that begins at no reliable beginning and works towards no reliable end.

Affordances and Falsification

Traditionally, many investigators have been inclined to treat organisms as entities that organize themselves according to their abilities. Thus, consciousness, thought, memory, creativity, understanding, and so on are all considered to be products of some sort of dynamics within a given organism – some sort of neurological, or biological, or epigenetic computation.

However, conceivably what transpires within, say, human beings is not so much a dynamic of self-contained generation of phenomena by a given organism as much as that which transpires might be a form of affordance. Affordances have to do with what comes to an organism from without (and this does not necessarily refer to the immediate physical or material environment) and which is transduced (via somatids or microzymas) into a biological dynamic that is intended to serve as a receiver for: The order field, or aether-like, or “cloud-like” set of signals which, in a sense, are existentially instantiated or translated or rendered (via somatids and/or microzymas) as a way of giving rise to an array of epigenetic pathways that give expression to a regulated set of ordered dynamics concerning that which is being afforded to the organism.

Furthermore, choice (i.e., the exercise of agency) and learning/conditioning (in a human being or other kind of organism) could serve as an additional set of filters. These could affect what signals might be permitted to be transduced or could affect (shape) the character of the transduction process, and, consequently, could impact what occurs with respect to heart transplant dynamics and

subsequent changes in personality, behaviors, and sense of identity in some cases.

The organism, via its different sets of somatids and/or microzymas, serves as a prism-like set of filters that affects or shapes what is manifested on the organism side of the foregoing sort of interactional process that synergistically links, on the one hand, the affordances of the order field or aether-like cloud in which life-forms are enveloped as well as permeated and, on the other hand, in the manner in which an organism (via biological capabilities, choice, and learning) filters what is being transduced by somatids/microzymas. The aforementioned filters transduce those affordances according to their capacity to do so.

For example, some savants have been demonstrated to be able to produce, within seconds, the correct answer to, for example, cubing any six figure number, or providing the square number for any number which they are given, or be able to tell one exactly how many objects (involving hundreds of such objects) had been dropped on the ground by someone? There are savants whom when, given a date during the last several thousand years, or more, will tell one what day of the week that date fell on.

Are the foregoing feats the result of some sort of neurological computation – and, if so, what, exactly is the nature of that dynamic? Or, do the foregoing kinds of answers arrive through some other means?

My high school athletic coach was a guy by the name of Clarence Thompson. I never spoke about him to my wife until I mentioned that my brother had bumped into him while they were each out and about in the world, and my former coach informed my brother that he (Mr. Thompson) really wanted to see me – the term my brother used was “desperate” and would my brother pass along the message.

It had been more than 55 years since I had last seen Mr. Thompson. He lived about 50, or so, miles away from me, and although I was not keen on the idea and could think of no reason why he would be “desperate” to see me, I decided to make the hour, or so, drive, and visit with my former coach for an afternoon.

The discussion was amiable and covered events that had happened in each of our lives. However, for the most part, I listened to

him rather than said all that much, and, in the process, developed a more nuanced appreciation for him as a person, but never could figure out why he might have been so “desperate” to talk with me.

The visit came to an end. I went home and provided a fairly cursory debriefing of the meeting for my wife, and, then, we never spoke again about Clarence Thompson until a year, or more, later, when my wife told me that she had a dream about my former coach who had been trying to reach me by phone, but, apparently, had been put in touch with my wife instead via a dream rather than a phone.

A few days later, my wife saw the obituary for Clarence Thompson. When she checked the date of death it was the same day as she had her dream concerning him.

There will be some individuals who will treat the foregoing set of events as entirely coincidental. To which one might respond with: How does one falsify such a claim, and, alternatively, how does one falsify whatever claims might be made in conjunction with my wife’s dream in conjunction with the timing of my former coach’s passing away?

On several occasions during the years when I was associated with my spiritual guide, he went on sabbatical. During his last sabbatical, he took his family and went on an excursion through various locations in Saudi Arabia, Pakistan, and India.

I was not expecting to see him again for another 4 or 5 months when he would return home to begin teaching fall courses at the university. However, nearly half a year before his expected return, he came home.

Ramadan (the month of fasting) was about half, or more, underway. The members of our Sufi group were called notifying them that our spiritual guide had returned to Toronto and we were being invited to attend a Thursday night gathering of remembrance known as “fatiha” at his residence.

After completing the various aspects of the foregoing spiritual observance, we sat around in a circle on the floor and, in the usual fashion, tea was served to accompany the sweets that, among other things, had been blessed during the fatiha process and which would be distributed to those who were present.

Talk of one kind or another would also ensue while we drank the tea and ate the sweets which had been given to us following fatiha. During this aspect of events, our shaykh mentioned a vision which he had in Ajmer, India.

There were several parts to the foregoing vision. The facet which is most relevant to the current discussion is that in the vision, he was informed that his work had been completed.

At the time, none of the people who were listening to our shaykh give his account of some of what had transpired during the aforementioned – and this included me – understood the significance of what was being said. Eventually, after a number of hours of discussion about a variety of topics, the evening came to a close, and those who had been called, went to their respective homes.

We finished out the rest of the month of fasting. This included a number of special night vigils that were intended to honor the anniversaries of spiritual personages who were important to our group and who had passed away at various points in the past.

Nineteen days after Ramadan was completed, our shaykh passed away. He was 58, a relatively young man, and his passing away was as unexpected as was his return during Ramadan, and, yet, as unexpected as those two events were, I believe they were connected.

There will be those who, for various reasons, will dismiss what is about to be said. However, as far as Popper's issue of falsification is concerned, such individuals are in the same boat of unknowing as are those who are inclined to accept what is about to be said.

More specifically, a possible reason for why our spiritual guide showed up 4-5 months earlier than the time we had anticipated to be the case and which we previously (prior to the beginning of his sabbatical) had been told would be his time of return was because he knew that his biological life was coming to an end. In other words, among other things, he had been informed in the vision that his work had been completed, and, therefore, his Earthly purpose had been served.

Following the vision, he could have stayed in Pakistan for the remainder of his sabbatical and passed away in that location, but he rushed home: Possibly, to be with his initiates for a bit longer; to put

his affairs in order; and to be buried in Toronto rather than in a foreign country which, for a variety of reasons, might be difficult for his initiates to visit.

From a Popperian perspective, the foregoing scenario confronts an individual with a number of problems. For example, how does one falsify a vision ... indeed, how does one go about falsifying any one-off event which does not repeat and, therefore, cannot be replicated independently?

Nonetheless, the unexpected passing away of our shaykh some 40, days, or so, following his vision serves as a confirmation, of sorts, which suggests that at least part of what he was informed during his vision appears to be true because, surely, when one dies, then, one's work is done. However, his passing away was not necessarily the reason why his work was done, but, rather, his spiritual work might have been indicated to have been done, and his passing away followed from that.

Let's take a look at another sort of experience which enables us to look at the issue of falsification from a slightly different direction. It involves an event that took place some 500, or so, years ago.

More specifically, back in the 16th-17th century, someone had made a substantial amount of noise in late at night in the courtyard near the residence of an individual by the name of Ahmad Sirhindi (may God be pleased with him) who is considered by many to be one of the spiritual legends of the Sufi mystical path. The individual who was making all the aforementioned noise, was a young initiate of the path, and he was yelling, again and again, that he had seen God.

When the shaykh reached the young man and was able to induce the latter person to calm down as well as to provide an account of what had happened, the initiate described a powerful experience that had descended upon him suddenly. After listening to the young seeker, the shaykh indicated that the young man was being silly because all he had witnessed was the light of his own "wudu", or condition of ritual cleanliness.

The shaykh had, in a sense, falsified the initiates claims concerning what had happened. While the young individual had experienced a manifestation (namely, a certain kind of light) that, certainly, had been made possible by Divinity, nonetheless, he had not actually seen God.

Those influenced by Popper might wish to argue that both the young man's claim as well as the claim of the shaykh were pseudo-science. Yet, the shaykh's claim had not been arbitrary in nature since it was rooted in a set of internal instruments which served as metrics for measuring or discerning the nature or dhawq (taste) of a given kind of experience – a set of instruments which operate in an entirely non-physical manner and, consequently, to try to apply material-based instruments and methods to assess the significance of the foregoing sorts of experiences would be, from the mystical point of view, to engage in a process of pseudo-falsification.

In all of the foregoing cases – starting with my spiritual guide's claim concerning the meaning of an anomalous experience I had on a Christmas Eve not many days after first meeting him, as well as concerning his never-before experienced ability to “see” into the inner sanctum of another person's life, and, then, book-ended with the account of my shaykh's passing away and the account of the young initiate who claimed to have seen God – there appears to be no way to falsify (in Popper's sense) the claims being made concerning how someone might have acquired a certain kind of experience, knowledge, or understanding that appears to be very intimately or closely entangled with not only relevant aspects of life but, as well, facets of the truth.

As noted previously, Popper might likely say that while the foregoing sorts of experiences could be described as being meaningful, nonetheless, whatever claims are made in connection with those sorts of experiences are not scientific because there is no way to falsify those kinds of claims. However, such events are not just meaningful, they can be tied to claims that can be proven to be true in one way or another and, therefore, are linked with knowledge in some sense.

If something can be shown to be true or give expression to knowledge of some kind, and, yet, cannot be falsified, then, according to Popper, such experiences cannot be considered to be part of science. However another way of engaging the foregoing perspective is to ask oneself the following question: If science does not deal with everything which has to do with things which can be shown to be true or experiences which involve that which can be shown to be connected to knowledge of some kind, then, why should we limit

ourselves to what science can falsify as we search for truth and knowledge, and, moreover, why should we limit ourselves to what so-called science can and can't falsify, and, in addition, what counts as a legitimate expression of falsification.

If one can access certain aspects of truth and knowledge through non-scientific means, then, why automatically suppose that the knowledge and truths which can be shown to come through non-scientific methods are somehow inferior to the sorts of understanding which comes through science? Okay, such truths and knowledge might not be scientific, but, so what?

Such non-scientific truths and knowledge are not just meaningful. They are connected to truth and knowledge in various – often complex ways.

Popper wished to distinguish between science and pseudo-science, and, therefore, used the principle of falsification as a demarcation dynamic to differentiate science and pseudo-science. In doing so, then, apparently, the Popperian perspective leaves room for something being true and, yet, not scientific, and, if this is the case, then, what is science's significance or epistemological place because there are things which might be true which, according to the Popperian perspective, cannot be considered to be scientific, and, therefore, one can't help but wonder why people would want to restrict themselves to the limits of a process of falsification when there might be aspects of truth which can be accessed that have nothing to do with such processes of falsification.

Can Popper's notion of falsification be falsified? Can the truth (assuming that one can establish what is true) be falsified, and, if there is no way to show how the truth could be falsified, then, one appears to be forced to claim that the truth is not scientific ... that it is some form of pseudo-science.

On the other hand, if truth cannot be falsified, then, can one tenably use such a principle or process as a way of differentiating between science and pseudo-science? Moreover, one might also ask why the notion of falsification should be limited to instruments which are rooted in physicality or materiality, as if the processes of falsification were bound to only low-lying fruit which can, for better or worse, be accessed by the kinds of instruments which are used when

engaged in processes of falsification concerning issues in which Popper might be most interested.

Apparently, one must explore the physical because we have means of falsifying claims made about physical events, and, therefore, if one wants to be able to call one's explorations scientific, then, one must use the tools of falsification which are available to us. Yet, surely, one might wonder how one goes about falsifying the claim that only the physical realm exists, if one's only instruments are physical in nature and, therefore, biased in their way of engaging, filtering, framing, and measuring Reality or Being?

If a person wishes to learn how to falsify certain kinds of spiritual or mystical claims, then, one must go through a rigorous process of learning how to cleanse and calibrate one's internal instruments. Among other things, this means, pursuing certain kinds of practices or disciplines which have been available for thousands of years.

Zikr (remembrance), Qur'anic recitation, fasting, prayers, *fatiha*, night vigils, seclusion, meditation, contemplation, and service to others are among these practices. Spiritual luminaries of the past – such as: Starting with the Prophet Muhammad (peace be upon him): al-Bistami, Hallaj, al-Muhasibi, Rabi'a, Hujwiri, 'Abd al-Qadir al Jilani, al-Ghazzali, Mu'in ad-Din Chishti, Rumi, ibn al-'Arabi, Najm al-Din Razi, Maneri, Shah Waliyullah, and many others (may God be pleased with them all) each – in his or her own way -- outlined and taught about what was necessary to pursue the sciences of mystical discipline.

One can find teachings that resonate intimately with the foregoing considerations from a variety of other spiritual traditions. For instance, one might refer to: (among others) Black Elk, Red Cloud, Sitting Bull, and Crazy Horse who were spiritual luminaries among North American indigenous peoples, to individuals such as: Ramana Maharshi from the Hindu tradition, or Tilopa and Naropa from the Buddhist mystical tradition, or the Desert Fathers of the Christian mystical tradition, or individuals such as Lao Tzu who follow a Taoist tradition (may God be pleased with them all). Moreover, one could add individuals from Jewish, Jain, and other mystical traditions which resonate with what has been said previously.

The opening chapter of the *Tao Te Ching* indicates: "The Tao that can be told is not the eternal Tao. The name that can be named is not

the eternal name.” The foregoing set of words as well as the array of thoughts which those words tend to induce seem to allude to a dichotomous-like conundrum in which falsification cannot identify what is ultimately true, and, yet, a falsification-like process is needed to separate the wheat from the chaff just as the foregoing statements are seeking to induce readers to arrive at such a point of discrimination.

Against the foregoing one must balance people like the fraudulent teacher whom I encountered and have spoken about previously, as well as individuals such as Carlos Castaneda ... people who – in a demonstrable manner -- could be shown to have tried to lead people away from the light and into spiritual darkness. As a result, learning how to develop a sense of dhawq or discernment concerning various claims about different dimensions of Reality, Being, or Truth becomes complicated – but, perhaps, only somewhat more complicated than the problems which are created by all the so-called scientists who are not committed to developing even a Popperian sense of “taste” with respect to being able to differentiate between what constitutes good science and what constitutes pseudo-science on a physical/material level.

In all of the foregoing cases – starting with my spiritual guide’s claim concerning the meaning of an anomalous experience I had as well as concerning his never-before experienced ability to “see” into the inner sanctum of another person’s life, and, then, book-ended with the account of my shaykh’s passing away and the account of the young initiate who claimed to have seen God – there is no way to falsify (in Popper’s sense) the claims being made concerning how someone might have acquired a certain kind of experience, knowledge, or understanding that appears to be very intimately or closely entangled with not only relevant aspects of life but, as well, facets of the truth.

Popper might likely say that while the foregoing sorts of experiences could be described as being meaningful, nonetheless, whatever claims are made in connection with them are not scientific because there is no way to falsify such claims. However, such events are not just meaningful, they can be tied to claims that can be proven to be true in one way or another and, therefore, are linked with knowledge in some sense.

If something can be shown to be true or give expression to knowledge of some kind, and, yet, cannot be falsified, then, according to Popper, such experiences cannot be considered to be part of science. However another way of engaging the foregoing perspective is to ask oneself the following question: If science does not deal with everything which has to do with things which can be shown to be true or experiences which involve that which can be shown to be connected to knowledge of some kind, then, why should we limit ourselves to what science can falsify as we search for truth and knowledge, and, moreover, why should we limit ourselves to what so-called science can and can't falsify, and, in addition, what counts as a legitimate expression of falsification.

If one can access certain aspects of truth and knowledge through non-scientific means, then, why automatically suppose that the knowledge and truths which can be shown to come through non-scientific methods are somehow inferior to the sorts of understanding which comes through science? Okay, such truths and knowledge might not be scientific, but, so what?

Such non-scientific truths and knowledge are not just meaningful. They are connected to truth and knowledge in various – often complex ways.

The foregoing sorts of issues are not necessarily restricted to issues of mysticism or spirituality. For example, in clinical medicine, drugs are often repurposed for treating conditions other than the ones for which they were originally developed.

The repurposed application of those drugs are referred to as being off-label because those drugs were developed with another health condition in mind rather than the medical condition for which they are being used. As a result, the purpose for which they are being used does not appear in conjunction with the drug's labeling information.

In some instances, the foregoing sorts of off-label uses involving various drugs have been found to work – at least, to varying degrees, but, for this success tends to camouflage the fact that no one necessarily knows or understands why the drug works in cases for which it was not developed. In other words, on the one hand, when certain off-label uses of a drug are pursued, clinicians can sometimes chart improvements of different kinds in the condition of their

patients, but, on the other hand, the clinicians using the drug have no idea how that improvement is made possible by such a drug or what the precise nature of the metabolic interaction between a given instance of off-label usage and a particular biological system will be.

Clinicians set the medical roulette wheel in motion. Round and round it goes, and no one knows where the drug which has been selected will go or whether it will work when it lands.

An off-label usage of a drug arises because somewhere along the line, someone has had the idea that, maybe, a given drug will work in a particular set of medical circumstances because of various kinds of empirical and conceptual resonances between, on the one hand, a drug's initial historical development and/or use, and, on the other hand, certain properties, dynamics, or facets which are present in a current medical condition and which suggests the possibility that repurposing the usage of such a drug might be play some sort of constructive role in the current medical situation with a minimum of foreseeable potential for harm in using such a drug for a purpose it had not been originally intended.

There is a process of falsification entailed by the foregoing off-label usage. After all, the drug will either work to some degree or it will not.

Nonetheless, one could hardly call the foregoing process scientific even though there is an element of experimentation taking place – usually without the consent of the patient. Someone has had an idea that using a given drug in an off-label way might help solve or constructively modulate an existing medical condition, but no one knows what the origins of that idea is, and no one knows if it will work or if there will be any short-term or long-term collateral damage as a result of such off-label usage, and, even if the drug does prove to have some degree of efficacy, no one knows how the drug participates in the biological dynamics which help give expression to such efficacy.

Where do thoughts come from? How are they formed?

Are they the result of neurological computation of some kind, and, if so, what is the specific nature of that computation? Or, do ideas emerge, like Athena, fully developed and dressed in armor, ready to go about their business?

How do creativity, intuition, dreams, intelligence, or consciousness actually work? What is the nature of the relationship between words and thoughts? What makes the regulation of that relationship possible?

Many individuals are quite prepared to refer to mysticism as, at best, some sort of pseudo-science because they don't have the requisite experience, training, commitment, understanding, tools, or abilities to grasp how a person can develop a refined and nuanced system of experiential tasting which enables one to navigate one's way through different aspects of mystical phenomena. Yet, when a medical practitioner is stumbling about in the dark and making a proposal that is backed up with no clear understanding of the actual dynamics of what is being proposed or whether, or not, what is being proposed will work, such activities are frequently referred to as scientific even though they are steeped in ignorance concerning the 'known, unknowns', let alone the 'unknown, unknowns'.

Falsification: A Matter of Perspective?

There are many problems surrounding the notion of falsification, and one doesn't have to reflect on issues of metaphysics or mysticism in order to encounter them. For instance, consider the research of Christine Massey who is a Canadian biostatistician living in the province of Ontario.

During the alleged COVID-19 pandemic which began to be pushed by W. H. O., the CDC, and other agencies – both public and private – in early 2020, Massey, along with some colleagues stationed in both Canada and elsewhere, began to send out Freedom of Information requests to a variety of government agencies, research institutions, hospitals, and universities that eventually involved some 35 countries.

Well over 200 of the foregoing inquiries were sent out. Those letters of inquiry asked one simple question – namely, whether, or not, the government agency, hospital, or public health-related organization being contacted could provide records indicating that such institutions (or anyone, anywhere in the world) had been able to establish that samples taken from sick individuals had led to the subsequent purified isolation of the SARS-CoV-2 virus in the aforementioned samples.

Government agency after government agency, public health organization after public health organization, hospital after hospital, research institution after research institution, university after university all responded with the same kind of reply. The wording varied somewhat from one letter of response to the next, but, essentially, they all indicated that: 'No, there are no records in our possession indicating that the SARS-CoV-2 virus has been isolated or purified.'

More than 200 government, research, medical, and public health facilities had been contacted and not one of them could offer records or evidence indicating that the alleged SARS-CoV-2 virus existed. All manner of claims were made beginning in late-2019, early-2020 (and following that period of time) concerning the existence of the alleged virus that the purported SARS-CoV-2 virus had been isolated, purified, sequenced, and proven to cause COVID-19, and, yet, none of the relevant institutions that should have had a multiplicity of records containing data concerning the foregoing sorts of discoveries were able to provide any documentation or records which demonstrated that SARS-CoV-2 existed.

Arguments broke out about whether, on the one hand, the origin of SARS-CoV-2 came from bats which somehow (in a way that was never explained) had made the jump to human beings, or whether, on the other hand, the alleged virus was the result of some sort of gain-of-function research that had been conducted in places such as The Virology Institute in Wuhan, China. In the latter instance, scientists pointed to an anomalous, non-natural evolutionary change to a PRRA (an amino acid motif) spike glycoprotein polybasic furin cleavage site.

However, before one begins an argument about whether a given virus is natural or due to a gain-of-function research, one should be able to provide evidence that SARS-CoV-2 actually exists. Yet, the responses to the Freedom of Information project being run by Christine Massey and her colleagues (both in Canada and elsewhere) all indicated – without exception – that a host of government agencies, public health organizations, major hospitals, or research institutions (totally more than 200 in number and located in 35 different countries) had not been able to provide any records or documents

demonstrating that evidence for the existence of the foregoing entity had been established.

In effect, Christine Massey and her research colleagues had offered the very government agencies, public health organizations, research institutions, universities, and hospitals that were pushing the COVID-19 narrative an opportunity to back up their claims with evidence concerning the existence of the SARS-CoV-2 virus and all of those organizations falsified their own claims.

If one accepts the idea that being able to falsify claims serves as a way of differentiating between science and pseudo-science, and, if one takes into consideration that the foregoing sorts of research, medical, and public health organizations all issued responses which falsified the idea that SARS-CoV-2 existed, then, the implication would seem to be quite straightforward. More specifically, the idea that SARS-CoV-2 existed and, therefore, could be cited as a cause for COVID-19 was nothing but pseudo-science, and, yet, that very pseudo-science was knowingly used to push a narrative that induced people (and sometimes forced them) to take an unproven form of mRNA therapy that was touted as being able to counter a virus that didn't exist in a "safe and effective" manner ... how does a given form of therapy treat something effectively for which no official records or documents could be produced that demonstrated the existence of the entity against which such therapy was supposedly directed?.

The foregoing scenario is not an isolated historical phenomenon. For example, consider the experiences of Kary Mullis who, as noted previously, had won the Nobel Prize for his invention of the PCR (Polymerase Chain Reaction) protocol. In the late 1980's, he was engaged in doing some consulting work for the National Institute of Health in conjunction with the idea that HIV (Human Immunodeficiency Virus) caused AIDS.

He was tasked with writing a grant progress report for the NIH concerning the development of an HIV test. He wanted to provide a source for the idea that HIV caused AIDS and began to do research concerning such a source.

During his initial search through the research literature concerning HIV and AIDS, he couldn't find anything indicating that, in fact, HIV caused AIDS. As a result, he began to ask a variety of

professionals who were involved in the foregoing sort of research for any source which had demonstrated that HIV caused AIDS, but none of the people he asked could offer him any such source reference.

On one occasion, he was attending a gathering or party which was also attended by Luc Montagnier, a French virologist, who, supposedly, had discovered HIV (and for which he would be awarded the 2009 Nobel Prize in Physiology and Medicine for this 'discovery'. Mullis began to query Montagnier concerning the HIV-AIDS issue, and, reportedly, Montagnier became upset with the questions and walked away from Mullis.

Nonetheless, despite the complete absence of any robust research which is able to demonstrate that HIV causes AIDS (and Kary Mullis spent a considerable amount of time trying – unsuccessfully -- to uncover such a source), many facets of the medical establishment continue to push the idea that HIV causes AIDS. What justifies the latter narrative if qualified individuals like Kary Mullis (and he was not alone among researchers and clinicians with respect to this contention) that no source research exists which demonstrates that the aforementioned, alleged virus is responsible for the onset of AIDS.

The extensive investigation by (among others) Kary Mullis serves as a fairly rigorous dynamic of falsification concerning claims that HIV causes AIDS. Yet, notwithstanding such evidence, all too many medical practitioners insist – despite the absence of evidence which is capable of substantiating their claims – that HIV causes AIDS.

Once again -- and in a manner that resonates deeply with the earlier discussion of the research of Christine Massey and her colleagues in conjunction with their refutation of the idea that SARS-CoV-2 exists and is capable of causing COVID-19 – the notion that HIV causes AIDS also appears to ignore the principle of falsification and seeks to insist that, notwithstanding considerable evidence to the contrary, HIV causes AIDS and, consequently, gives expression to the idea that such claims are a function of pseudo-science and not science.

In 2011, Stefan Lanka, A German virologist, offered a sum of 100,000 Euros to anyone who could prove that measles is caused by a virus. David Barden, a German doctor, sought to claim the monetary offering by presenting a number of papers which he purported to show that measles was caused by a virus.

Lanka rejected the research which Barden presented. The dispute ended up in the German courts, and, after a number of years, a lower court in Germany sided with Barden and claimed that his 'evidence' showed that a virus caused measles.

The foregoing decision was appealed. A higher court reversed that judgment and indicated that the evidence presented by Barden did not prove that measles is caused by a virus.

Some people have interpreted the decision of the higher court to serve as proof that the measles virus does not exist. Such individuals seem to miss the point that the judgment of the higher court was not about the issue of the existence of a measles virus but whether or not the evidence which Barden had brought forth actually demonstrated that measles was caused by a virus, and, consequently, the court decided that Barden's alleged evidence had not proved what he claimed it did, and, therefore, Lanka's unwillingness to turn over 100,000 Euros to Barden was justified.

However, a few years ago, Dr. Lanka performed an experiment that demonstrated how the methodology which is used by virologists and medical clinicians to allegedly isolate a virus is problematic. He accomplished this by doing something that previous researchers had failed to do.

More specifically, he ran a control experiment in conjunction with an experimental group. Both the experimental and control group were run through precisely the same protocol with just one difference between the two groups.

The experimental group began with a sample from a sick person that was subsequently added to a mixture which contained monkey Vero cells (coming from the epithelial cells that are part of the kidneys in African green monkeys) as well as the presence of an antibiotic to ensure that the experimental process would be free of bacteria that might affect the outcome of the experimental protocol. The control group began with a sample drawn from the same part of the body of a healthy person that matched the area of the body from which the sample from a sick person had been drawn, and, then, the sample from the healthy person was added to the very same kind of mixture to which the sample from the sick person was added.

Both groups were, then, left in a condition that offered precisely the same kind of limited, if not minimal, access to nutrients within the mixture to which each was added. The presumption had always been made by virologists and medical clinicians that if the monkey Vero cells died following the introduction of a biological sample, then, this cell death (known as a cytopathic event) would be an indication that the death of those cells was due to a virus that, presumably, had been present in the sample from a sick person (bacteria were ruled out as a cause of the cell death due to the presence in each mixture of antibiotics that were capable of eliminating any bacteria which might be present in a given sample).

However, when Lanka ran his experimental and control groups, the monkey Vero cells in both groups died. Consequently, the fact that both samples met the same fate indicated that the death of the cells had not been caused by a presumptive virus, but, instead, the death of the cells in both the experimental group (containing a sample from an ill person) and control group (containing a sample from a healthy person) was a function of the ingredients (e.g., the antibiotics that are present are known to adversely affect monkey Vero cells), as well as the conditions that were present in the identical mixtures to which each of the samples had been added (e.g., a limited or minimal access to the nutrients in the aforementioned mixtures that would be necessary to sustain the Vero cells over the period of time in which the experiment was run).

The work of Christine Massey and her colleagues demonstrated that no one could provide evidence to indicate that the alleged SARS-CoV-2 virus existed. The aforementioned experiment of Stefan Lanka suggests that the reason why no one could provide evidence that SARS-CoV-2 exists is because there is evidence to indicate that the protocol which has been used to prove the existence of viral entities is flawed because irrespective of whether one works with a sample from a healthy person or one uses a sample from a sick individual, the result of the experimental protocol is the same – the Vero cells in both the experimental and control group undergo a cytopathic event (i.e., they die) and, therefore, the cause of that death cannot be due to the presence of a virus because no virus has been shown to exist during an experimental procedure which results in the death of the Vero cells in

both the mixture containing the sample from a healthy person as well as from a sick person.

The foregoing considerations also indicate why Kary Mullis was never able to locate source material which demonstrated that HIV caused AIDS. In order to demonstrate that HIV causes something, first one must be able to show that HIV exists, and the method used to do this is flawed because it does not prove what it purports to prove – namely, that a virus is present and responsible for the observed cytopathic event in the Vero monkey cells.

Whatever Luc Montagnier and the Nobel Committee for Physiology and Medicine believed he had discovered wasn't a virus. Images of the discovery were captured in an electron micrograph in conjunction with an electron microscope.

However, the objects captured in the micrograph were not subsequently analyzed to prove that they were viral in nature or that they were capable of causing an illness such as AIDS. Indeed, the Perth Group in Australia which was founded in 1981 by biophysicist *Eleni Papadopulos-Eleopulos* (now deceased), pathologist John Papadimitriou, and emergency physician Valendar Turner – all of whom had worked at the Perth Royal Hospital – released a great deal of research over a period of more than four decades that sought to falsify claims that HIV existed or that it caused AIDS were untenable, and, yet, once again, despite such a rigorous process of falsification, the position that has been adopted by so-called mainstream virology and medicine is one that is pseudo-scientific because it runs contrary to the principle of falsification, and, as a result, such individuals will not acknowledge any process that they would accept as being able to falsify what they claim concerning viruses, HIV, or the alleged link between HIV and AIDS.

Popper indicated that in order to follow the science, one had to pay attention to the principle of falsification. Although many of the people who speak out about: COVID-19, or the idea that HIV causes AIDS, or the notion that viruses exist, all claim that they are engaged in following the science and encourage other people to do as they are doing, nonetheless, they ignore the evidence which falsifies such claims and, as a result, seem to be entangle in different forms of pseudo-science.

Brain Versus Mind

There is a further consideration which one might also want to keep in mind along with the perspective which has been outlined in the foregoing pages of discussion. More specifically, a number of years ago, John Lorber conducted some research which might have some degree of relevance to that discussion, and, indeed, if Lorber's research is correct, then, one should keep asking the same sort of question in conjunction with all of the aforementioned areas of research: What is really going on here?

Roger Lewin wrote an article for the journal *Science* that appeared in the December 1980 edition and was entitled: "Is Your Brain Really Necessary?" The article provided an overview of certain aspects of the clinical work conducted by a British neurologist, John Lorber (1915-1996).

One of the research interests of Professor Lorber (he was on faculty at Sheffield University) involved the condition of hydrocephalus in which, usually for congenital reasons, the cerebrospinal fluid of a person is prevented from circulating properly as it flows between the spinal column and the brain. As a result, over time, the cerebrospinal fluid begins to collect in one or more of the ventral spaces within the brain and, as it builds up, starts to exert an outward pressure which squeezes the brain against the skull.

Professor Lorber divided people with the foregoing condition into four categories. First, there were those individuals whose brain scans indicated a minimal amount of enlargement of their ventricles (the spatial chambers within the brain through which cerebrospinal fluid flows), and, then, beyond this minimalist category, there were individuals whose scan indicated, respectively, ventricles or spaces within the brain that occupied: (2) 50 to 70 percent of an individual's cranium; (3) 70 to 90 percent of a person's cranium space, and, finally, (4) 95% or more of the internal cranium space of an individual.

Professor Lorber indicated that category 4 constituted about 10% of the total group of the people being studied. At least half of these individuals -- that is, individuals whose cranium is 95%, or more, filled with cerebrospinal fluid, and, therefore, with very little brain material -- exhibited severe cognitive challenges and disabilities, and, yet, nonetheless, the remaining half of this group of individuals were able

to take an intelligence test and score 100, which matches the mean average score for that test.

Moreover, Professor Lorber also indicated there was one youngster from the foregoing category-4 group who scored 126 on the IQ test and who, also, had obtained a first-class honors degree in mathematics. In addition, his social capabilities were, in all respects, quite normal.

The reason why this particular young man showed up in Professor Lorber's study was because one of that individual's professors noticed the youth had a larger head size than other students and, as a result, referred the student to Professor Lorber for possible inclusion in the latter's research study. When a brain scan was performed in conjunction with that student, instead of observing a thickness of 4.5 centimeters in the brain tissue that normally exists between the ventricles and the outer portion of the cortical surface, the researchers found just a thin sliver of brain material measuring approximately a millimeter, or so, in thickness.

While commenting further on the case of the foregoing young student, Professor Lorber indicated that he couldn't be sure whether the quantity of cerebral matter in the student's brain was 50 grams or 150 grams. However, one thing the pediatric neurologist was sure of was this -- irrespective of whatever the precise amount of cerebral material was which might actually be present, it is substantially less (by an order of magnitude or more) than the 1.5 kilograms (1500 grams) that characterizes the weight of a normal brain.

Notwithstanding a cranium which is 95% filled with cerebrospinal fluid and the presence of brain material that is a millimeter, or so, in thickness (rather than the usual 4.5 centimeters of thickness), and which weighs roughly 1450 to 1350 grams less than a normal brain of some 1500 grams, the student graduated with a honors degree in mathematics. Furthermore, as previously indicated, there were other individuals who were in the same group that were able to score 100 on an intelligence test.

Many people believe the brain is what makes consciousness and the mind possible. However, conceivably, what makes the brain possible are consciousness and mind, and, as such, the brain, like an

iceberg, merely constitutes the most visible part of a phenomenon that runs much deeper than the visible portion would tend to suggest.

If Lorber's research is correct (over the years, there have been a number of people who have rejected Lorber's research out-of-hand, but, to my knowledge, no one has been able to demonstrate that Lorber's results are the result of provably bad science), then, every statement which limits itself to the 3lb material universe inside the skull of a human being is subject to various kinds of qualification, modulation, and amendment that tend to transcend modern theories of brain functioning. In other words, something more is going on with consciousness than brain functioning can account for and, consequently, any form of diagnosis, treatment, or set of protocols which is designed to correct or enhance cognition in some way that ignores the ways in which consciousness transcends such brain functioning, then, to that extent, one should exhibit caution in conjunction with such forms of diagnosis, treatment, and protocols

Although various aspects of the following issues are explored somewhat more deeply in several books that I have written (e.g., *Follow the What? Toxic Knowledge*, and *Something More Deeply Hidden* – Volumes 1 and 2), one might reflect upon ideas originating with: Gerald Pollack (*The Fourth Phase of Water*), Masaru Emoto (*The Hidden Messages in Water*), and Veda Austin (*The Secret Intelligence of Water*) who have all alluded to – and sought to evidentially support – the possibility that water has the capacity to serve as a medium which has the capacity to give rise to complex forms of structural dynamics which, among other things, have the capacity to generate plasma-like conditions. When one couples the foregoing considerations with the research and work of people such as Gilbert Lings and Harold Hillman – who maintain that adenosine triphosphate (ATP, which is produced in mitochondria) is not a source of energy for cellular dynamics but, instead, interacts with proteins to help unfold the latter molecules so that they might provide charged surfaces which serve as a sort of seeding medium which can be regulated by epigenetic dynamics that, in turn, give rise to biochemical pathways, electrical circuitry, and semi-conductor-like arrays that are capable of shaping biological processes – then, one might begin to consider the possibility that so-called memories could be enabled to form, be stored and/or transferred almost anywhere given the right kinds of conditions

involving: Aether-like order fields (the ontological cloud – the great Cloud of Unknowing if one likes), somatids/microzymas, structured water, ATP, and epigenetic pathways that generate proteins that , in conjunction with the presence of ATP, form various kinds of semi-conductor arrays within the water as expressions of biological forms of plasma physics that are able to create epigenetically-shaped electrical and bio-photonic circuitry conducive to, among other things, life processes as well as dynamics involving memory formation and transfer.

In 1985 Benjamin Libet, an American neuroscientist, released a paper entitled: *“Unconscious cerebral initiative and the role of conscious will in voluntary action”*. The paper consisted of an overview and analysis of experiments that had been conducted by Libet ... experiments that revolved around the apparent differences between, on the one hand, the point in time when a subject’s brain indicated that a choice had been made and, on the other hand, the time when a subject indicated that his or her subjective state of mind was conscious of having made a choice.

Neuroscientists had known since the 1960s that voluntary motor action follows the emergence of a ‘readiness potential’ or RP. An RP consists of a slow, negative transition in electrical potential that takes place, on average, about 800 milliseconds before a subsequent motor behavior occurs.

Did the subjective awareness of choosing to move, say, a finger take place: Before, simultaneously with, or after a related finger-movement RP signaled its presence? An inquiring mind (i.e., Libet) wanted to know.

Libet’s experiment needed to make three kinds of temporal measurement. He needed to know: (1) When a person subjectively was aware of choosing to do something (designated as ‘W’ – for “will” - in the experiment); (2) when the readiness potential occurred that preceded the action chosen (labeled ‘RP’ in the experiment), and (3) when the actual action took place (designated as ‘M’ – for movement – in the experiment).

Determining the values of ‘M’ and ‘RP’ in any given experimental trial was relatively easy to measure. Electrodes attached to muscles revealed the value of ‘M’, and ‘RP’ was determined by averaging the

shift in negative electrical potential that was exhibited by a subject over a number of trials (40) involving movement of a certain kind.

The method that Libet used to measure the point in time when a subject became aware of having made a choice to flex her or his wrist was a little bit more complicated. A clock face was displayed on a screen, and the face of the clock was swept once every 2.56 seconds by a spot of light.

The experiment required the subjects to indicate where the spot of light was on the face of the clock when they were aware of having chosen to flex their wrist. Several independent means were used prior to running the experimental trials to ensure the reliability of the subjects' estimates concerning when their choices had been made, and, on average, the subjects indicated that the choice to move their wrists was made approximately 120 milliseconds before M -- that is, the movement -- occurred.

Surprisingly, Libet discovered that the RP (readiness potential) showed up prior a subject's awareness of having made the choice to move his or her wrist. The average value of that differential was 350 milliseconds.

In other words, 350 milliseconds before a subject was aware of choosing to flex her or his wrist, an RP (indicating that movement was imminent) was present. If choice is what causes movement, then, why did the awareness of having made a choice follow the appearance of electrical potential in the brain ... an electrical potential that indicated that the wrist movement was about to take place?

Libet -- as the aforementioned title to his article suggests -- believed that the cause of the wrist movement resided in the unconscious. Conscious awareness of choice came after the brain's change in electrical potential indicated that a movement of the wrist was imminent, and, therefore, conscious activity (W) could not be considered to cause that (i.e., RP) that clearly came before such activity.

As a result, Libet raised a question in conjunction with his experiment. Does consciousness have anything to do with the choices that are made?

Libet did seem to believe that subjective consciousness might have the capacity to assent to, or veto, the 'unconscious' choice that was made prior to the emergence of subjective awareness of such a choice. However, if this is the case, Libet did not explain how the assenting or vetoing process took place in subjective consciousness.

More importantly perhaps, whatever questions (and interpretive responses) Libet might have had with respect to his experiment there are some questions, apparently, that he did not ask himself. For example, what transpired before the RP emerged?

Libet assumed that what took place prior to the emergence of the RP was of an unconscious nature. However, he had no idea what actually was occurring during the period that occurred prior to the appearance of the RP.

How is an 'unconscious' process capable of being aware of the nature of an experiment, and how does such an 'unconscious' understanding know when or how to respond? Can we assume that working memory – i.e., normal, waking consciousness – is the only form of awareness that is present?

Perhaps, there are parallel, active modalities of awareness taking place within us simultaneously. Isn't it possible that some other locus of awareness makes the choice to, say, flex a wrist and that information concerning such a choice is transmitted to working memory within a time frame that only shows up in a subject's working memory dominated awareness after the appearance of the RP?

We think we know who we are. Supposedly, we are the entity that is trying to construct an understanding of experience through the activities of working memory.

Attention is dominated by the activities of working memory. In fact, attention is dominated by the activities of working memory to such an extent that we become inclined to identify with those activities and, in the process, we often shy away from looking too closely at what is transpiring beyond the horizons of working memory because this sort of scrutiny tends to lead to: Problems, questions, doubt, uncertainty, instability, anxiety, confusion, and a sense of losing touch with that which we have deluded ourselves into believing we are ... i.e., working memory.

Libet's experiment suggests there is something deeper in us, or associated with us, that has the capacity to be aware of circumstances and make relevant choices concerning those circumstances ... a 'something deeper' that appears to be somewhat different from – and, perhaps, to some degree independent of -- that which transpires in working memory. This 'deeper something' is not unconscious but, rather, the nature of working memory is such that it tends to give expression to a form of awareness that has blinders on and, therefore, is not aware of lots of other things that are going on within the mind ... things that are going on in a quite intelligent, understanding, willful, and conscious manner.

It is working memory that is relatively unconscious. Every so often, however, working memory notices experiential data – such as in the Libet experiment -- which alludes to the possibility of dimensions of reality that might exist beyond the limited horizons of working memory, and, whatever working memory does with such disturbing/exciting information will go a long way toward determining whether – and how -- the great unknown will be engaged or largely ignored ... if not actively denied by working memory.

Biases, Intuitions, and the Unconscious

When considering what to read for the current essay, a book that caught my eye was a work by Daniel Kahneman entitled: *Thinking Fast and Slow*. Kahneman had won a Nobel Prize in Economics and, the aforementioned book had been the subject of effusive praise from a variety of individuals when it came out in 2011, and had, as well, been listed as a bestseller by *The New York Times*.

However, none of the foregoing considerations were what interested me in the book. Without having, yet, read its contents, I was intrigued (based on the book's title) with the possibility that Kahneman's research might explore, or critically reflect, on ideas and experimental data that were related to the work of Benjamin Libet, or some of the studies (some of which has been touched on previously) involving savants, along with contributions from others concerning the evidence indicating that some of the most amazing human capabilities seem to be a function of something happening in the realms of the so-called 'unconscious' ... a 'something' that seemed to

give expression to an awareness as well as an array of capabilities that could not be explained by what appeared to be taking place in the aspects of surface consciousness to which we tended to have access on a daily basis.

How do we account for: Consciousness, intelligence, language, creativity, reason, insight, talent (musical, artistic, athletic, mechanical, mathematical, and so on), memory, intuition, ideas, and critical reflection. There appears to be a huge disconnect between, on the one hand, what seems to be taking place on the surface level of consciousness and, on the other hand, that which bubbles to the surface of consciousness from an unknown depth and which cannot be plausibly explained away as being the products of a series of not-yet-understood blind, biochemical and neurological dynamics.

After reading a fair amount of Kahneman's book I was disappointed as far as the foregoing sorts of issues were concerned. In fairness, however, perhaps one should try to read a book from the perspective of what an author was trying to do rather than from a conceptual orientation which wished that he, she, or they had done something other than what he actually did do.

As Kahneman points out in his introduction, one of the primary themes of his book involves reflecting on the manner in which "biases of intuition" affect the quality of our thinking. Furthermore, he indicates that, since -- more often than not -- human beings tend to go about their daily business using various combinations of emotional dynamics, sensory impressions, and intuitive indicators as navigational tools for helping us to move about the challenges of life, he suggests that it might be helpful to try to: Discover how we go about making judgments; be able to recognize when and why those judgments might have gone off the rails at certain junctures, and, then, take corrective action so that we get better at the process of making judgments.

The foregoing considerations are laudatory, but there was something about what he was outlining in his introduction which seemed problematic. For instance, consider his phrase: "biases of intuition."

First of all, how do biases form? If something that one feels or intuitively is true, is this feeling or intuition a bias?

Secondly, what kind of intuition is being addressed by Kahneman in his research? For example, the phenomenon of “thin slicing” is rooted, to some extent, in our emotions but gives expression to properties that seem intuitive in nature. ‘Thin slicing’ refers to the process of rendering judgments about situations based on a limited amount of information, and such judgments are a function of being able to perceive the presence of certain kinds of patterns of behavior or properties in a given situation that capture – when done correctly – something important about a person or a set of circumstances.

For instance, Wendy Levinson conducted research that was geared toward trying to discover what the differences are, if any, between doctors that got sued on multiple occasions and doctors that have never been sued. She listened to hundreds of conversations between doctors and their patients, and she noticed a pattern that might account for why some doctors got sued, while other doctors did not get sued.

More specifically, she noticed that doctors who did not get sued tended to display certain characteristics ... characteristics that were not in evidence – or to the same degree -- among the physicians who got sued on multiple occasions. For example, doctors who did not get sued spent an average of three minutes, or longer, with their patients than did doctors who were likely to be sued.

Moreover, the doctors who had not been sued spent their minutes with their clients emphasizing active listening in which individuals were encouraged to talk about their condition. In addition, those doctors tended to joke and laugh a lot more with their patients than did doctors who had been sued on multiple occasions.

The ‘thin slicing’ that patients/clients did in relation to their doctors had to do with how the doctor made them feel. Doctors that were willing to spend a little more time with their clients and who were willing to use that time to show interest in the lives and conditions of their clients and who were willing to laugh and joke with their patients were not likely to be sued, whereas doctors who tended to de-emphasize or lacked the foregoing qualities were the ones who got sued.

For the most part, individuals spend only a limited amount of time with their doctors over the course of many years. So, visits lasting 15

to 20 minutes constitute only a very small sampling of the millions of minutes that are entailed by the life of a doctor.

Doctors who do not get sued do not necessarily give better medical information or treatment to their clients than doctors who do get sued, and individuals from the former group are not necessarily better doctors than individuals from the latter group are. There are doctors who make medical mistakes who never get sued, while there are very competent doctors who get sued irrespective of whether they have made a mistake.

Nalini Ambady, a psychologist followed-up on the research of Wendy Levinson. Dr. Ambady listened to the Levinson recordings and selected two conversations from each doctor/client relationship.

Dr. Ambady reduced those conversations to ten second segments. She, then, filtered the smaller, audio segments in such a way that the content of the words were removed from the audio recordings while the rhythm, intonation, and pitch of those ten second conversations were retained.

The next step of her research involved having judges evaluate those clips and rate them for the presence of qualities such as: Hostility, warmth, and dominance. Once those ratings were made, Dr. Ambady discovered that she was able to use those judgments to differentially distinguish between doctors who were, and were not, likely to have been sued.

Doctors -- based on just the pitch, rhythm, and intonation of what they said -- who were judged to exhibit qualities such as warmth were in the group of doctors who had not been sued. Doctors who were judged to display qualities such as dominance -- again based on just the intonation, rhythm, and pitch of what was said -- were in the group of doctors that had been sued multiple times.

The 'thin slicing' of the judges in the experiment conducted by Dr. Ambady was fairly extreme. Nonetheless, it served as an accurate predictor of who had, and who had not, been sued.

Similar 'thin slicing' experiments have been done in conjunction with being able to predict whether marriages will, or will not, be successful and whether someone is, or is not, a good teacher. Gavin De Becker wrote a book entitled: *The Gift of Fear* that explored how

learning to attend to certain kinds of ‘thin slicing’ emotional assessments that take place outside of the activities of waking consciousness could protect a person against being killed, raped, or physically assaulted in some way.

Human beings engage in such ‘thin slicing’ all the time. On the basis of very little information, we make judgments or evaluations – especially emotional ones -- concerning people and situations.

The judgments and evaluations that are being made through the process of ‘thin slicing’ are not unconscious. There is an intelligent awareness present in those ‘thin slicing’ judgments/evaluations – to which normal, waking consciousness/working memory is not necessarily privy (except indirectly through physical responses such as sweating palms, or through hunches, intuitions, and feelings) – that often are capable of accurately assessing the nature or character of what is transpiring in the on-going experiential activity being processed (to a degree) by working memory.

Now, not all instances of thin slicing are necessarily accurate reflections of what is taking place. There are all kinds of ways that thin slicing can be influenced, corrupted, and thwarted by the biases, fears, anxieties, beliefs, values, interests, and so on that frame waking consciousness or working memory (and, in part, these sorts of problematic issues involve the kinds of judgments that are rooted in the sorts of “biases of intuition” to which Daniel Kahneman was seeking to draw people’s attention in his aforementioned book: *Thinking Fast and Slow*.)

However, irrespective of whether the process of thin slicing manages to accurately capture some facet of on-going experience or whether that process fails to grasp what is going on in on-going experience, the phenomenon itself gives expression to a form of awareness (outside the awareness of working memory) in which various kinds of assessments, evaluations, and/or judgments are being made according to certain kinds of logic and reasoning and that is taking place in conjunction with what is transpiring in normal waking consciousness/working memory. In other words, there are parallel modalities of intelligent awareness that are operating side-by-side in the same individual, and while the dynamics underlying thin slicing are aware of what is taking place in normal, waking consciousness, the

latter is unaware of what is transpiring in conjunction with such thin slicing dynamics (or only vaguely so through the presence of physical indicators – such as sweating palms – or through the presence of intuitions, hunches and other kinds of feelings).

The so-called unconscious is not unconscious. Instead, waking consciousness/working memory has engaged in an inaccurate hermeneutic concerning the process of thin slicing and, as a result, waking consciousness has come to the conclusion that what is taking place outside of its sphere of awareness must be of an unconscious nature because the dynamics of the latter are not accessible to waking consciousness.

In reality, however, the only thing that is, in a sense, unconscious is normal waking consciousness (or working memory). This is because waking consciousness has no understanding of dynamics that entail an array of conscious, intelligent activities that are taking place within the individual but which are taking place beyond the narrow, compartmentalized horizons of working memory.

In February 1997, *Science* published an article by a group of researchers at the University of Iowa. The title of the article was: “Deciding Advantageously Before Knowing the Advantageous Strategy.”

The contents of the foregoing article discussed an experiment involving the development of strategies for maximizing winnings in a given set of circumstances. Those circumstances involved four decks of cards, two of which were blue in color while the other two decks were red in color, and, in addition, each card – from each of the four decks – carried a value that represented a gain or a loss of money.

Furthermore, the researchers knew ahead of time that while an experimental subject occasionally might be able to earn a lot of money by choosing cards from the red decks, more often than not, the red cards would lead, over time, to the loss of money. The blue cards, on the other hand, entailed only relatively small gains, but those gains were fairly consistent.

The individuals conducting the experiment wanted to know how long it would take before a given subject would realize that choosing the blue cards was more likely to lead to monetary gains whereas choosing cards from the red decks was likely to undermine a subject’s

attempt to maximize winnings. There were several stages to the experiment.

During the first phase of the experiment, a general group of people was tested. Such individuals began to suspect there was something problematic about the cards in the red deck when approximately 50 cards have been selected, and by the time 80 cards have been selected, most of the individuals participating in the first stage of the experiment, were able to accurately describe the nature of the problem.

Although people in the general group suspect – around the 50 card juncture – that there might be a problem with the cards in the red deck as far as maximizing winnings is concerned, they usually are not able to articulate what the nature of that problem is at that time. They just know they are becoming more inclined toward choosing cards from the blue deck, and another 30 cards, or so, will have to be selected before the penny drops, so to speak, and the subjects are able to identify the precise nature of the problem involving cards from the red decks and, as well, become able to specify the nature of that problem.

The second stage of the foregoing experiment focused on the responses of individuals who liked to gamble. Aside from the distinguishing feature of liking to gamble, the other primary difference between the two groups is that the hands of the individuals in the gambler group were hooked up to an apparatus that measured the dynamics of the sweat glands in the palms of their hands, both with respect to heat and stress.

The glands in the palms of the hands of the gamblers began to sweat after about 10 cards. Moreover, the behavior of the gamblers began to change around the same time ... that is they began to favor cards from the blue deck over cards from the red deck.

Therefore, some 40 cards prior to the time when individuals from the gambler group of subjects or from the general group of subjects would consciously begin to suspect there might be some kind of problem entailed by selecting cards from the red deck, and 70 cards prior to the point when those individuals would be able to articulate what the nature of the problem was, 'something' in the gambler group knew there was a problem with cards from the red deck and, as a

result, such awareness led to changes in behavior that were not being instigated by the conscious minds of those individuals. In other words, individuals from the gambler group were favoring cards from the blue decks, but those people were not aware this was taking place.

The ‘something’ that seemed to be aware of what was going on prior to the time when “normal consciousness” was aware of the problem involving cards from the red deck is sometimes referred to as the “adaptive unconscious.” This terminology seems rather curious.

While normal consciousness appears to be unaware of what is going on, the so-called adaptive unconscious seems to have a keen insight into what is transpiring. The foregoing awareness is sufficiently keen to bring about an alteration in a person’s behavior in order to reflect, and be able to profit from, such an understanding.

What seems to be acting in an unconscious manner is the normal, surface, waking consciousness. What seems to be conscious are the dynamics that are taking place out of sight from allegedly normal, surface, waking consciousness.

The Iowa experiment gives expression to the presence of an inverted perspective. What is normally considered to be conscious is, instead, unconscious, while what is usually considered to be unconscious is, actually, quite aware of what is transpiring.

In the second stage of the foregoing Iowa experiment, ‘normal’ consciousness seems to be in something of a stupor and lacking the requisite intelligence to be able to figure out what is going on. Yet, 10 cards into the experiment, another part of human understanding – something that is, allegedly, unconscious -- grasps the situation.

Why is the adaptive unconscious being referred to as the unconscious when the capabilities it is manifesting in the experiment seem to indicate otherwise? Why is surface awareness being referred to as conscious behavior when that awareness is so obviously oblivious to what is taking place before its very eyes?

Antonio Damasio, a neurologist, led the Iowa research group that devised the foregoing experiment. Among other things, Dr. Damasio has a scientific interest in a segment of the brain known as the ventromedial prefrontal cortex.

A variety of data implicates the ventromedial prefrontal cortex of the brain as having some degree of responsibility for helping to render judgments that shape behavior. For example, that area of the brain seems to be involved in processes of differential diagnosis with respect to prioritizing incoming information concerning how to proceed amidst various possibilities in a given set of circumstances.

Patients with damage to their ventromedial prefrontal cortex were run through the aforementioned experiment involving four decks and two kinds of colored cards. Those patients performed differently than did either the general ('normal') group or the gambler group.

Like the people in the gambler group, the individuals in the group with damaged ventromedial prefrontal cortices had the palms of their hands hooked up to a monitor so that the activity of their sweat glands could be measured. However, unlike the individuals in the gambler group, the people in the ventromedial prefrontal cortex patient group displayed no hint of glandular activity during the experiment.

Can one assume that the absence of any sign of glandular activity in the patients with damage to their ventromedial prefrontal cortex was because those patients were not aware of some sort of problem involving the red colored cards? Not necessarily, since one, or another, dimension of cognition in those patients still might have been aware of the problem with the red cards but, for whatever reason, the signal that induced sweating in the palms of the gamblers was blocked in the case of the patients with damage to their ventromedial prefrontal cortex.

In addition, unlike the other two experimental groups, individuals with damage to their ventromedial prefrontal cortex also did not seem to exhibit any intuitional sense -- at around the 50-card mark -- that something might be amiss with the red cards. Nonetheless, how or when the foregoing fact was determined is somewhat unclear.

Conceivably, the individuals in the patient group might not have considered the presence of that information to be very high priority and, as a result, it was not reported because it was lost amidst lots of other information and not because there had been no experience of such an intuition. Or, perhaps, at some point the patients did have such a 'hunch', but because that experiential information was not flagged as

being important to them, it was not converted into a long-term memory and, therefore, if the individuals in the patient group were asked about whether, or not, they had any intuition concerning the situation, they might not have remembered what they actually had experienced.

Finally, even after the members of the patient group arrived at a 'conscious' understanding of the problem entailed by the red cards, their behavior did not change. In other words, they did not take advantage of that understanding to maximize their winnings.

To be sure, something is being disrupted in patients with damage to their ventromedial prefrontal cortex, but what – precisely -- that 'something' is isn't necessarily clear. Whatever it is, unlike Damasio, I'm not convinced that the problem is one involving decision making per se ... although decision-making might be affected by whatever the foregoing problem entails.

Participating in an experiment involves making a decision, and, yet apparently, decisions were made to begin to participate and decisions were made to continue to participate. Choosing cards from decks of cards involves making decisions, and, yet, cards were selected. Responding to the questions of the researchers involves making decisions, and, yet, answers appear to have been given.

If an individual didn't care about maximizing winnings, then it might make sense that despite coming to grasp the significance of the red and blue cards, such an individual would not necessarily use that understanding to help him or her to maximize winnings about which the person didn't care. If a person were indifferent to a hunch that something was amiss with the red cards, then, why bother to remember a fleeting instance of phenomenology that appeared to be unimportant? If a person were indifferent to maximizing winnings, then why bother to induce the glands in the palm to sweat ... sweating is a sign of tension, or concern, or stress, so, why would an individual who doesn't care about winning bother to sweat?

Considered from a different perspective, one also might suppose that decisions are, in fact, being made with respect to the filtering of information concerning the experiment. However, if an individual is uninterested, or unmotivated, or indifferent to the idea of maximizing winnings, then, such an individual might appear to be having difficulty

with decision making when she or he fails to use new understanding to benefit himself or herself.

Nonetheless, deciding to rate certain kinds of information as being unimportant with respect to the issue of devising strategies to maximize winnings is not necessarily the same as being unable to make decisions at all. The Iowa researchers might have preconceived ideas about what constitutes evidence of a decision having been made and, as a result, they might not recognize the presence of certain kinds of decisions that run contrary to their expectations about what a decision looks like.

Notwithstanding the foregoing considerations, even if one were to agree with Dr. Damasio that the ventromedial prefrontal cortex was connected, somehow, to the process of making judgments and decisions with respect to the relative importance of incoming information in relation to an ongoing set of circumstances as well as with respect to the sort of behavior that would best address those circumstances, there are some questions that need to be asked. Those questions all concern the role of the ventromedial prefrontal cortex in the process of decision-making.

How does a network of neurons, glial cells, synaptic circuits, neurotransmitters, gliotransmitters, and gap junctions in the ventromedial prefrontal cortex make decisions concerning the relative importance of incoming information? How does such a network prioritize that sort of information?

Where do the values come from that establish what the priorities are? How is incoming experiential information interpreted to determine its relative importance? What is sufficiently aware of incoming experiential information to be able to make the foregoing sorts of determinations?

What if the ventromedial prefrontal cortex is not responsible for making such decisions but, rather, is merely a medium for transmitting certain kinds of signals involving those decisions? If the ventromedial prefrontal cortex is responsible for decision-making, we, currently, have no idea how that cortex does what it does.

Conceivably, the reason why no one has, yet, come up with a plausible account about how networks of neurons, glial cells, and the like are capable of making those sorts of decisions is because those

networks don't actually possess the capacities that are being attributed to them. Decision-making might be done in some way that occurs outside the dynamics of the brain, and the reason why the ventromedial prefrontal complex is associated with such processes is because that segment of the brain has some kind of a role to play with respect to translating into biological terms information from the non-brain-based dynamics being alluded to ... a biological dynamic that supports/receives such information processing signals without being responsible for generating the kinds of information processing signals that give expression to decision-making.

Assuming that the brain is responsible for intelligence, decision-making, evaluation, interpretation, judging, prioritizing, and so on might appear to be a far simpler proposition than supposing that there could be some undiscovered realm (possibly of a physical nature, but, also, possibly, of a non-physical nature) that lies beyond the brain that is responsible for phenomenology and its contents even as the brain plays some sort of receptive, transductional, and/or supportive role with respect to that phenomenological dynamic. Nevertheless, the foregoing assumption is simpler only if it is actually the case that the brain is responsible for: Phenomenology, its contents, and the capabilities that make those phenomenological contents possible ... something that, at the present time, seems to be a long way away from having been demonstrated.

Many of the fundamental features of the quantum world were discovered gradually over a period of 75 years, or so, because, among other things, the assumptions that were made along the way about the nature of atomic phenomena didn't make sense in the light of empirical data. While it might still be the case that researchers will discover a conceptual Rosetta-like Stone to decode how neurotransmitters, gliotransmitters, synaptic circuits, neurons, glial cells, and gap junctions interact to produce the phenomenology of consciousness and its contents, nonetheless, it might also be the case that the assumption that the brain underwrites all mental phenomena could be wrong in part, or entirely, even as the brain does have its role to play with respect to those phenomena ... and, today, that role is only partially, if at all, understood.

Modern imaging technology – which is rapidly evolving with the passage of time – is giving better and better resolution concerning the precise nature of the dynamics of the brain that are implicated in one, or another, cognitive process (and the aforementioned ventromedial prefrontal cortex is just one of many networks that could be mentioned in this respect). However, as such resolution continues to improve and as the focus of imaging technology narrows the scope of the field being examined, the brain networks being considered are shrinking in size and, yet, those shrinking networks are being burdened with the responsibility of having to explain considerable complexity and specialization as a function of smaller and smaller networks of brain circuitry.

Up until relatively recently, researchers have been pointing to the existence of billions of neurons and glial cells in the brain, along with the on-going dynamics of trillions of synaptic connections, to account for consciousness and other mental phenomena. However, as imaging technology zeroes in on smaller and smaller networks of the brain (such as the ventromedial prefrontal cortex) in order to account for specialized mental phenomena, a possible problem begins to rear its head.

More specifically, if various kinds of mental phenomena are not caused by the complexity of billions of cells and trillions of synaptic circuits interacting with one another but, rather, are the result of the properties of particular, dynamic circuits of limited size (relatively speaking), then, researchers might have to rethink how such, relatively small circuits are responsible for behavior of considerable complexity.

For example, on the basis of various statistical methods, some people (e.g., Stephen Waydo) have estimated that a given concept might involve the firing of just 1/1000th (a million neurons) of the available neurons (approximately a billion neurons) in the medial temporal lobe. Other individuals (e.g., the recently deceased Jerome Lettvin) have suggested that specific concepts might involve the firing of no more than 18,000 neurons.

While there is certainly a difference in size between a network involving a million neurons and a network involving 18,000 neurons, in either case, one is no longer talking about billions of cells and

trillions of synaptic connections. How did a million neurons (and associated synaptic connections) or 18,000 neurons (and associated synaptic connections) come to represent or give expression to a particular concept?

Within such relatively restricted fields of consideration, what differentially regulates the flow of neurotransmitters and gliotransmitters amidst an array of neurons, synaptic circuits, and gap junctions to generate one concept rather than another? What induces synaptic circuits to reconfigure themselves to help give expression to one kind of concept rather than another kind of concept?

Within such relatively restricted fields of consideration, what is responsible for integrating those concepts into a decision circuit (for example, in the ventromedial prefrontal cortex) that leads in one direction rather than another? How do neurons, glial cells, synaptic circuits, gap junctions, neurotransmitters, and gliotransmitters interact to produce an evaluation, interpretation, or prioritizing of incoming information so that decisions emerge from such restricted fields of consideration.

The aforementioned Iowa research concerning the experiment involving four decks and two colors of cards bearing different values supposedly indicates that subjects are making complex evaluations in an unconscious manner. Furthermore, the foregoing research also indicates that individuals who have some sort of damage in their ventromedial prefrontal cortex are unable to make the same sort of evaluations, and, therefore, the ventromedial prefrontal cortex is identified as the location where such unconscious evaluations/prioritizations are made for the purpose of making decisions concerning the problem with the red cards relative to the blue cards.

Aside from the previously outlined reservations about what, exactly, the nature of the deficit might be in people with damage to their ventromedial prefrontal cortex, one might also question the description of whatever it is that is capable of discerning a difference between the values of the blue cards and the red cards in the Iowa experiments as being an unconscious process.

‘Something’ is aware of the differences between the red cards and the blue cards. ‘Something’ is keeping track of what happens over time

with respect to both kinds of cards. 'Something' is evaluating such differences in an intelligent, reasoned manner. 'Something' is actively influencing behavior so that individual subjects (other than ventromedial prefrontal cortex patients) will be able to take advantage of such understanding so that winnings will be maximized.

None of the foregoing activity qualifies as being unconscious. To be sure, such activity does take place outside the awareness of so-called normal, waking consciousness, but this only means there are several kinds of consciousness that are capable of operating simultaneously in human beings.

If we identify with so-called normal, waking consciousness, then every other form of consciousness that is occurring within us will seem alien and other ... as unconscious in nature. However, such an interpretation of what is transpiring is merely a biased take on what the evidence is telling us.

The unconscious realm is not what is figuring out what is going on with the red cards in the experiment. The unconscious is not what generates a correct 'hunch' concerning what has been discovered that bubbles into view within so-called normal, waking consciousness.

The unconscious realm in gamblers is not what permits them to figure out what is going on after selecting just ten cards. Instead, a conscious, intelligent, reasoned understanding of the experimental situation is taking place, and one of the ways in which that assessment is disclosed to so-called normal, waking consciousness is through the activity of sweat glands in the palms of the hands of the gamblers.

The sweating palms are trying to tell normal, waking consciousness something. However, normal, waking consciousness is too busy engaging incoming information from its own, limited perspective, and, therefore, the form of consciousness that actually knows something has to assume responsibility for modifying behavior in a way that will maximize winnings even though normal, waking consciousness doesn't understand what is taking place.

There is no unconscious dynamic taking place because the activity that is being described as giving expression to the unconscious could not do what it does if it actually were unconscious. Indeed, how can that which is supposedly unaware of the incoming information (e.g.,

the four decks of cards experiment) evaluate the significance and value of that information in such an intelligent manner?

The principles underlying the value of the blue and red cards were understood before waking consciousness understood what those principles entailed. Consciousness is present in a manner that is being manifested through different modalities.

Normal waking consciousness might believe that it is the chief operating officer as a function of the sense of 'self' that has been constructed through an array of biases, assumptions, expectations, beliefs, interests, needs, hopes, and past choices that regulate and govern what takes place in (and what is granted access to) normal, waking consciousness. However, evidence – such as that produced through the Iowa experiments – indicates that so-called normal, waking consciousness is not the only form of consciousness that is operating.

Because normal, waking consciousness has developed the false belief that it should be in control of things, other conscious modalities have to struggle to find ways of influencing what transpires in the form of awareness that is known as 'normal, waking consciousness'. This struggle comes in the form of such things as: Sweating palms, hunches, intuitions, insights, or, finally, by inducing surface awareness to acknowledge the correctness of a conscious understanding (e.g., concerning the difference between red cards and blue cards) that has been present for quite some time but -- due to the inclination of normal, waking consciousness to try to control the flow of both focal awareness as well as the contents of consciousness -- so-called normal, waking consciousness has resisted the attempts of the other modalities of consciousness to inform and modulate the understanding of normal, waking consciousness.

Once the waking form of consciousness becomes inclined toward certain biases, beliefs, and assumptions, then, other modalities of consciousness encompassing data (ideas, values, and feelings) that run contrary to the framework of so-called waking consciousness tend to be relegated to compartmentalized mental spaces that form along the horizons of normal, waking consciousness. Such relegated forms of consciousness are referred to as being unconscious.

However, there is nothing of an unconscious nature that is taking place in such modalities of awareness. The evidence from experiments such as those performed by the aforementioned Iowa researchers indicates as much ... and due to its own agenda in such matters, the only source of resistance to the foregoing reality is normal, waking consciousness.

There are many, many experiments that could be cited in place of the aforementioned Iowa research which all point in the same direction as the Iowa research. In other words, there are numerous experiments that – like the Iowa four decks of cards experiment -- supposedly demonstrate the existence of the unconscious when the data from those experiments actually provide evidence concerning the existence of modalities of intelligent awareness or consciousness that run parallel to so-called normal, waking consciousness but, under certain circumstances are also able to engage, inform, and modulate normal, waking consciousness in a way that appears to exhibit both awareness and intelligence.

Normal, waking consciousness gives expression to working memory. Such consciousness constitutes the benchmark of awareness through which recent and on-going experiences are processed and through which beliefs, values, expectation, ideas, emotions, motivations, and interests, are constructed (i.e., turned into learning or long-term memory) and which, in turn, serve as filters that frame the way working memory is inclined to engage future experiences.

Various modalities of awareness – besides working memory – simultaneously seek to modulate the perspective of working memory by processing incoming data and forwarding that information to working memory. A dialectical dynamic takes place between working memory and those other modalities of awareness to determine that kinds of information will get to shape – at least for the moment – the hermeneutical perspective that will filter and frame the current understanding or interpretive orientation of working memory through which experience is engaged.

Emotions give expression to a hermeneutical assessment of some aspect of on-going experience. Some of those assessments are largely problematic (e.g., hatred, jealousy, despair, rage), while other emotional assessments are largely constructive (e.g., love, compassion,

patience, and empathy), and still other emotional assessments, depending on circumstances, are either problematic or constructive (e.g., hope, courage, trust, and contentment).

Emotions are centers of active awareness that communicate hermeneutical perspectives capable of informing us about ourselves and about the world in a way that cannot necessarily be grasped through rational analysis. Moreover, emotions – whether of a problematic or constructive nature -- engage experience in a manner that often tends to be far more intense than most forms of reasoned-based engagement.

Indeed, feeling the truth of something is often a quite different kind of experience than is the experience of understanding that same thing intellectually. However, there are experiences involving intellectual insights or epiphanies (Eureka moments) that give expression to experiences that encompass intensity on both the emotional and rational level, but the emotional component of that experience is a function of a separate emotional evaluation or assessment of the significance of the intellectual breakthrough.

Even when certain emotions generate a problematic assessment of an on-going experiential context, there is still a form of logic – problematic though it might be – that flows through such emotional evaluations. Emotions are not blind, but, instead, they always operate out of a certain hermeneutical orientation.

Unfortunately and all too frequently, some emotions are very narrow and rigid in the perspective to which they give expression. As a result, emotions are often blind or indifferent to other points of view -- emotional or intellectual – and such emotions might be referred to as being egocentric.

The kind of understanding to which emotions give expression is done through feeling rather than through thinking. Nonetheless, there is an awareness and modality of intelligence that is present in such feelings, and, therefore, emotions constitute centers of awareness that are capable of evaluating experiential situations according to the rules and principles governing such centers ... rules and principles that vary from emotion to emotion. (Daniel Goleman has written about this in books such as: *Emotional Intelligence: Why It Can Matter More Than IQ*).

Emotions are centers of rule- or principle-governed awareness that run in parallel with the activities of normal waking consciousness (i.e., working memory). Emotions are aware (although filtered and framed by their own hermeneutical perspective) of what is transpiring in on-going experience, but normal, waking consciousness tends to be unaware of what is transpiring in different emotional centers until waking consciousness begins to be besieged by emotions expressing their point of view and insisting that normal, waking consciousness become cognizant of that perspective.

When Eleanor Longden began university in 1999, there were at least two dimensions to her personality. On the one hand, she was intelligent, competent, and full of energy, but, at the same time, she also was frightened of almost everything, perpetually anxious, haunted by a sense of emptiness, and very unhappy.

At a certain point she began to hear a Voice. The Voice would make comments and observations about what was going on in Eleanor's life and the Voice seemed to be coming from a source that was separate from what Eleanor, at that time, considered to be her 'self' ... her person.

The Voice would come and go. Sometimes it stayed for a few days commenting on pretty much everything Eleanor did, and, then it would go away, only to come back at a later time.

The visits of the Voice became more frequent. The stays became longer.

For the most part, the Voice was just a relatively neutral town crier concerning the events in Eleanor's life. At times, however, the Voice would express things with an emotion that had been present in Eleanor but which had gone unexpressed in some given set of circumstances.

In time, Eleanor had an emotional and mental breakdown. She was diagnosed as being schizophrenic.

Largely because of the negative way (fear, distrust, suspicion) through which other people began responding to the label of schizophrenic that had been attached to her, Eleanor began to respond to the Voice in the same negative fashion and became hostile toward the presence of the Voice and its running commentary. Even the so-

called 'professional' assistance she began to receive -- after hospitalization and being diagnosed as a schizophrenic -- encouraged Eleanor to view the Voice as a symptom of madness rather than as being a part of herself that might have something to teach her concerning the problematic ways in which she was engaging life and thinking about herself.

As Eleanor became more antagonistic and resistant toward the Voice, the Voice reflected those feelings back to her. Eventually, the Voice was replaced by many voices, all of which were demanding in an incessant and manipulative manner ... including attempting to induce Eleanor to hurt herself.

She began to have terrifying, macabre visions. Delusions arose in her that became more extreme over time.

Fortunately, at a certain point during her mental distress, Eleanor came in contact with some individuals (e.g., members of the 'Hearing Voices Movement' that is shaped and inspired by the work of Sandra Escher and Marius Romme) who were able to induce her to take a more constructive approach to her condition. Among other things, they helped her to entertain the possibility that the voices she was hearing were merely a means through which the awareness of past traumas to her existence had been trying to communicate meaningful -- if not important -- content to her waking consciousness or working memory.

However, the form of communication through which various centers of traumatized awareness within her engaged her working memory was largely metaphorical and emotional in nature. She had to learn how to interpret or decode what was being communicated to her, and she had to learn how to become receptive, within certain limits, to what was being communicated.

Eleanor gradually discovered how to work co-operatively and constructively with her voices. Boundaries and conditions had to be set, but within such a framework, constant progress was made.

Over time, she learned that each of the voices she heard gave expression to different traumas from her past. Furthermore, she came to understand that the more menacing, hostile, and aggressive a given voice was, the more traumatic and painful were the experiences to which such a voice gave expression.

Although the voices never went away, Eleanor's manner of engaging the voices changed in a radical fashion. The more she became able to be a compassionate witness to the traumatic experiences that were being communicated through her voices and the more she became an active listener to their grievances, then the more the voices began to calm down and express themselves in benign ways.

Eleanor's ideas about schizophrenia also changed. She did not consider schizophrenia to be the result of genetics or some sort of chemical imbalance but, instead, she felt that schizophrenia encompassed the mind's deeply felt reaction to a set of past – and, perhaps, even on-going -- traumas, abuses, and existential losses of one kind or another.

Eleanor Longden went on to successfully complete her undergraduate work and, as well, to earn a master's degree in psychology. She is active in doing research and participates in the process of helping other people who hear voices to discover how to heal themselves by learning how to listen to and engage their voices.

Her story is unique, but it does not constitute an isolated incident of recovery. Marius Romme, a Dutch psychiatrist, has edited a book entitled: *Living with Voices: Fifty Stories of Recovery* (PCCS Books, 2013). In addition, Eleanor Longden and Dirk Corstens have written an article with the title: *'The Origins of Voices: Links Between Voice Hearing and Life History in a Survey of 100 Cases'*.

The voices that were communicating with Eleanor Longden were not forces of the unconscious. They were centers of awareness concerning issues of trust, betrayal, fear, abuse, neglect, trauma, and loss.

Those centers were aware of what was, and had been, transpiring in her life. However, Eleanor's waking consciousness was not aware of what was taking place in those centers of consciousness until first, the Voice, and, then, other voices began to give waking consciousness or working memory an earful.

When Eleanor's working memory learned how to engage those centers of awareness, the seeds of recovery began to be sown. Recovery involved a process of getting centers of awareness that simultaneously were running parallel to one another to become engaged in co-operative and constructive forms of communication.

Irrespective of what other mental and physical components might be present, a person's manner of responding to abuse, trauma, loss, fear, and so on is often deeply emotional. Those emotions give expression to existential, hermeneutical understandings or perspectives that are keenly aware of what is transpiring and/or what has transpired in a person's life.

Although identity diffusion disorder is considered to involve different kinds of mental issues than schizophrenia does, nonetheless, as far as the perspective that is being outlined in this section is concerned, there are, potentially, some important overlapping themes. More specifically, in those individuals who suffer from identity diffusion disorder, there are different personalities – somewhat akin to the role that voices play in “schizophrenia” (??) – that tend to operate in parallel with one another and, with the exception of so-called normal, waking consciousness or working memory, those personalities (or voices in the case of “schizophrenia”) do seem to have varying degrees of awareness involving one another and, especially, they seem to have an awareness of what is taking place in waking consciousness or working memory despite the fact that the latter kind of awareness does not reciprocate with respect to being aware of what is transpiring in relation to the other personalities (or voices in the case of schizophrenia).

In the phenomena to which the term “schizophrenia” is often attached, the voices are the ones who are trying to initiate a conversation of some kind with working memory. They do so by intruding into the mental space of normal, waking consciousness.

During identity diffusion disorder, various personalities that have arisen attract the attention of working memory in other ways. Rather than merely intrude into the mental space of waking consciousness through the use of voices, the other personalities hijack working memory and compartmentalize normal, waking consciousness to such a degree that the latter is not able to form memories concerning ongoing experiences and, therefore, is unaware of what has taken place during the temporal framework within which the hijacking occurred.

Sooner, or later, however, what takes place during those instances of hijacking -- together with the lack of memory of normal, waking consciousness concerning such episodes -- tends to lead to life

complications of one kind or another. Those complications become the doorway through which the contributions of different personalities -- like the contribution of different voices in schizophrenia -- serve as metaphorical clues that are to be decoded (with the assistance of another human being ... such as a therapist) in order to uncover existential problems of abuse, betrayal, trauma, loss, and emotional damage.

There is a certain amount of controversy surrounding the diagnosis of identity dissociative disorder. The disorder -- to whatever extent it exists -- appears to occur much less frequently outside of the United States than it does in America.

For example, in Japan and India, the disorder is considered to be largely non-existent. Moreover, in England, the incidence of identity dissociative disorder seems to be fairly rare.

To be sure, the processes through which symptoms and mental conditions are interpreted or diagnosed in different parts of the world tend to vary. Consequently, at least some cases of identity diffusion disorder might occur in Japan or India but those conditions are engaged and understood in a different manner than is the case in the United States, and as a result, the same condition in two different, geographically and culturally separated localities might be labeled in alternative ways in countries and cultures that are separate and distinct from one another.

Notwithstanding the foregoing considerations, in the United States, diagnosed cases of identity diffusion disorder have mushroomed over time. For instance, between 1930 and 1960, there were, on average, only two cases per decade that came to the attention of mental health workers, but in the 1980s, tens of thousands of cases were being reported.

Furthermore, whereas the cases of identity diffusion disorder (previously referred to as multiple personality disorder) between 1930 and 1960 tended to involve only 2-3 personalities, the number of personalities being reported in the 1980s exploded right along with the rapidly increased numbers of the disorder that, supposedly, were being diagnosed. In the 1980s clients were reportedly exhibiting between 3 and 12 distinct personalities rather than the 2-3 personalities that had been reported in cases between 1930 and 1960.

Were there thousands of cases involving identity dissociative disorder that were occurring between 1930 and 1960 and, for whatever set of reasons, simply, went undiagnosed? Possibly!

However, some psychologists believe that identity dissociative disorder is a cultural phenomenon that has been induced into existence by the way in which many therapists and psychologists have talked clients into believing that the latter individuals suffer from identity diffusion disorder (and this form of undue influence could be one source of the “biases of intuition” that were talked about by Daniel Kahneman in his aforementioned book: *Thinking Fast and Slow*). As was discovered in conjunction with false memory syndrome, research has demonstrated that the way in which questions are asked by a therapist or psychologist can shape the beliefs and understanding of the individual who is being asked the questions, and this might also be the case with respect to the issue of identity diffusion disorder.

While the explosion of diagnosed cases involving identity diffusion disorder that began in the 1980s could be, to a considerable extent, an iatrogenic-like phenomenon (that is, a problem generated through the process of psychological/medical diagnosis and/or treatment), this does not necessarily mean that all diagnosed cases of identity diffusion disorder are spurious. The cases which were reported between 1930 and 1960 might be few in number (6-7), but this all took place long before the diagnostic frenzy of the 1980s, and, therefore, those earlier cases were not necessarily induced by the physicians and therapists who were treating such individuals. Moreover, although many of the alleged cases of identity diffusion disorder that were diagnosed in the 1980s might have been therapist-induced, this does not necessarily mean all diagnosed cases were therapist induced.

Actual cases of identity diffusion disorder might be rare. However, there is no evidence to show that such a condition does not exist. Rather, the available evidence only indicates that the disorder might be far less prevalent than is often believed to be the case (An interesting work to read in this respect is: *When Rabbit Howls* by The Troops for Truddi Chase).

Finally, while according to the perspective of DSM-V (Diagnostic and Statistical Manual of Mental Disorders, 5th edition) identity

diffusion disorder is considered to give expression to a different kind of malady than schizophrenia, nonetheless, the underlying parallels in the roles that appear to be played by voices and personalities (outlined earlier) is suggestive. Possibly, voices and personalities are variations on an underlying mental mechanism and, as a result, there might not be as much of a difference as DSM-V's diagnostic categories tend to indicate between certain aspects of schizophrenia (e.g., conditions involving hallucinations and delusions to give metaphorical expression to underlying trauma) and identity diffusion disorder (which uses personalities to give metaphorical expression to underlying trauma).

Let's engage the issue of the unconscious from one last perspective. More specifically, let's consider some of the results from split-brain research.

The term "split-brain" alludes to a surgical procedure in which the corpus callosum (the extensive band of intermingled nerve fibers and glial cells that connect the two cerebral hemispheres of the brain) is severed, isolating the two hemispheres from one another. Such a procedure is sometimes carried out in relation to patients who suffer from seizures that cannot be treated in any other way.

A number of decades ago, clinicians discovered that disrupting the flow of information across the corpus callosum from one hemisphere to the other often resulted in the significant reduction in seizure activity. No one seemed to understand why the procedure worked, but because it led to the lessening of seizure activity, it was considered to be a pragmatic solution for a difficult and serious problem that previously had resisted other kinds of medical treatment.

However, given the radical nature of the procedure and despite the fact that the procedure had beneficial medical results, researchers were interested in trying to map out what, if any, collateral damage might have occurred as a result of the surgical procedure. This is where split-brain research enters the picture.

For many (but not all) individuals, the left hemisphere of the brain tends to play a dominant role in, among other functions, the understanding and production of language. On the other hand, the right hemisphere, among other functions, tends to control and sense what takes place in relation to the left side of the body.

The corpus callosum connects the two hemispheres. Scientists believe that information concerning what is happening in a given hemisphere is transmitted to the other hemisphere via the corpus callosum.

So, what happens to cognitive functioning when the information bridge between the two hemispheres is removed through the severing of the circuitry that previously linked the two hemispheres with one another? Dr. Michael Gazzaniga, among others, wanted to find out what, if anything, happened to cognitive functioning in such surgically treated patients.

The foregoing research revolved around the way human eyes are hooked up to our brains. Our visual system sends information to both hemispheres, but the nature of that information depends on which side of a person's visual system processes that information.

Information – such as an image or word – that is presented to the left of a given fixed point in the visual field will be sent to the right hemisphere. Information that is presented to the right of that fixed point in the visual field will be transmitted to the left hemisphere.

Generally speaking, individuals who have not been subjected to the split-brain surgical procedure will be able to use information from both sides of the visual field, relay that information to the appropriate hemisphere (based on the way the visual system is wired) and, then, via the corpus callosum, such information is exchanged between hemispheres and a holistic, visual picture is assembled. The foregoing situation is different for those people who have undergone split-brain surgery.

In the latter individuals, when an image is presented to the right of the aforementioned fixed point of the visual field, that information travels to the left hemisphere (where, in most people, language operations tend to reside), and, consequently, the individual will be able to give the word that corresponds to the object or word that is seen. However, if an object or word is presented to the left of the aforementioned fixed point of the visual field, the information will travel to the right hemisphere and the person will be unable to name the object.

In individuals who have not undergone split-brain surgery, whatever part of the visual system is projected to one hemisphere will

be shared with the other hemisphere via the corpus callosum. In individuals who have gone through split-brain surgery, such information cannot be shared via the corpus callosum, and, therefore, the right brain doesn't have access to the linguistic facilities of the left-brain, and, as a result, the visual object goes unnamed even though it is visible.

In split-brain patients, the right hemisphere does have access to visual information concerning what has been presented to the left of the visual field. However, in order to be able to give expression to the presence of such information, some non-verbal means will have to be used in order to be able to elicit such information.

For example, suppose a banana or the picture of a banana had been presented to the left portion of the visual field. If the individual were subsequently shown pictures of fruit, including one involving a banana, the banana could be picked out to reflect what had been seen.

Even more interesting things happen in relation to split-brain patients if two different images are presented simultaneously to each half of the visual field. In one of the experiments, the image of a chicken claw was presented to the left part of the visual field, while a snowy scene was shown to the right half of the visual field.

The pictures that subsequently were presented to the subject included the picture of a chicken and the picture of a snow shovel. If a subject was asked to use his or her right hand (controlled by the left hemisphere) to select the picture that best reflected the nature of the image that had been flashed earlier to the right side of the visual field (a chicken claw that was relayed to the left hemisphere), then, the person would point to or select the picture of the chicken, but if the individual were asked to use her or his left hand (controlled by the right hemisphere) to select the picture that best represented what had been shown, previously, to the left side of the visual field (a snowy scene that was transmitted to the right hemisphere), then, the subject would choose the shovel.

In the latter case, if the subject was asked to explain why the shovel was selected, the individual would engage in confabulation – that is, the individual would invent a story to give a 'rational' account of why the given choice of picture had been made. For instance, the

person might say something to the effect of needing to be able to shovel out the waste material that had been left by the chickens.

The subject's explanation for why the picture of the shovel was selected was intended to permit that individual to give an answer that seemed to make sense to the language-dominant hemisphere. Nevertheless, there was knowledge or understanding associated with right hemisphere activity that influenced what was selected with the left hand.

The latter kind of knowledge or understanding was not unconscious. It just couldn't be verbalized.

There was an intelligent awareness associated with the understanding present in the right hemisphere (concerning a snowy scene) that could induce a subject's left hand to pick the appropriate image (the shovel) from among the pictures being presented that best reflected or was most appropriate in relation to the information that earlier had been flashed to the left side of the visual field and that was, then, transmitted to the right hemisphere. Such understanding could not be put into words and, therefore, working memory had no linguistic way to give expression to that understanding, and, yet, the actions of the subject demonstrated that an appropriate understanding was present in working memory.

Language plays such a significant, dominant role in filtering and framing experience that when we have no words to express an understanding – such as in the foregoing split-brain experiment – it might seem as if such understanding is of an unconscious nature. However, this is not necessarily the case since that understanding is present, aware, and intelligent yet is operating through a different -- but parallel and simultaneous -- modality of consciousness than the left hemisphere does.

In another split-brain experiment, the researchers wanted to probe emotional responses to images that were presented to subjects. For example, in one of these experiments, the left sides of the visual fields of subjects were exposed to a film that showed one individual throwing another person into a fire, and, this means, that such information will show up in the right, largely non-linguistic hemisphere of the subject.

When asked what they saw, subjects might say something to the effect of: “I’m not sure”, or “there was some kind of flash” or, “there were some trees with red leaves ... like in the fall.” In addition, the subjects would indicate that they found the experience disturbing, upsetting, scary, unsettling, and the like.

There are several interesting dimensions to the foregoing responses. Even though the linguistic descriptions were sketchy and somewhat off the mark, nonetheless, those descriptions reflected, in a limited and somewhat distorted way, what the subjects had seen even though the right visual field of those subjects had not been presented with any imagery concerning the situation in which one person had thrown another individual into a fire.

If the corpus callosum of the subjects had been severed, how did the left hemisphere have enough understanding of the situation to be able to give descriptions that – although limited and distorted – were appropriate to the imagery in the film that had been presented to the left side of the visual field and, therefore, supposedly only was transmitted to the right, non-language dominant hemisphere? How did the understanding associated with right hemisphere information get transmitted to the language dominant left hemisphere if the corpus callosum had been surgically severed?

Moreover, putting aside issues concerning the linguistic descriptions of what had been seen, the language-dominant left hemisphere is giving entirely relevant linguistic responses to the emotional content of the images in the film that were presented to the left portion of the visual field and that were transmitted to the right hemisphere. Again, how did the language-dominant left hemisphere gain access to the emotional understanding associated with the visual information that had been transmitted to the right hemisphere if the corpus callosum had been severed?

Conceivably, one possible explanation is that not all of the bands of fiber in the corpus callosum were necessarily severed. If so, then, although limited in number, those fibers might have been sufficient to transmit at least some information from one hemisphere to the other.

However, there is no evidence to indicate that the foregoing correctly accounts for how the left hemisphere appeared to have access to, and an understanding of, information that, supposedly, only

was available to the right hemisphere. Thus, while it is possible that some sort of leakage was taking place between cerebral hemispheres via still intact fibers of the corpus callosum, this is only a conjecture.

Another possibility is that working memory has access to information from both the right and left hemispheres, but not all of that information is necessarily capable of being translated into a linguistic format. If this were the case, then, linguistic responses might be shaped, to varying degrees, by information and understanding that is present but that is difficult to translate properly into linguistic terms.

Seemingly, the left hemisphere is aware of some aspect of phenomenology that is being shaped by information coming from, or being mediated by, the right hemisphere. Moreover, there is sufficient awareness in the left hemisphere concerning that information to permit the language centers in the left hemisphere to be able to provide a limited, distorted, but not entirely irrelevant description of the visual information that was sent to the right hemisphere. Furthermore, there is sufficient awareness of that information to enable the left hemisphere to provide an entirely relevant description of the emotional content of the experience arising in conjunction with the imagery presented through the left side of the visual field that would end up in the right hemisphere.

Since the early experiments of Michael Gazzaniga, a lot of research has indicated that the brain is not necessarily as lateralized (which occurs when cerebral hemispheres have specialized functions distinct from one another) as once was believed to be the case. While there might be dominant aspects to certain dimensions of hemisphere activity, the non-dominant hemisphere might have a lot more going for it – including in relation to linguistic activity -- than previously had been thought.

Irrespective of what, ultimately, might be going on cognitively in split-brain patients, the main thrust of the foregoing discussion is to indicate that there can be parallel systems of awareness that simultaneously impact working memory. These parallel systems involve forms of understanding that cannot always be translated into linguistic terms and, yet, they are intelligent, aware assessments of on-going experience.

Transcending System I and System II Thinking

Early on in his book: *Thinking, Fast and Slow*, Kahneman refers to two “systems” of thinking which can be observed in the activities of human beings. He refers to the dynamics of System 1 as being faster than the dynamics of System II.

He also characterizes System I thinking as being relatively automatic in nature – that is, something which cannot be turned off in a conscious way and that, therefore, produces its results in either a useful or an off-the-mark manner, but, in either case, the individual is stuck with whatever such judgments might be. In short, the individual is not able to control or stop what is taking place within System I type of thinking.

When biases skew decisions or judgments in problematic directions, according to Kahneman, this is due to the operations of System I. In order for those biases to be countered or corrected, then, activities of System II must be brought into play.

System II thinking is characterized by qualities of effort, attention, and focus which tend to slow down the way different aspects of life are engaged. System I thinking, however, tends to run contrary to the foregoing aspects of System II activity because it is inclined toward being somewhat lazy in the way in which it goes about its activities and, therefore, will not exert the sort of effort, attention, and focus – as System II does -- that is needed to check on, counter, resist, or modulate what one is about to do – in accordance with System I thinking – in a relatively automatic or habitual fashion.

Furthermore, System II thinking -- unlike System I thinking -- displays qualities which can be characterized as constituting rule-following behavior, and, in addition – which, again, is unlike System I thinking – the activities that are entailed by System II thinking give expression to dynamics which suggest the presence of a capacity to compare phenomena along several lines of consideration and, then, to make deliberative, conscious decisions concerning the use to which such comparisons might be put (before the fact of implementing such decisions).

According to Kahneman, System I thinking tends to be tied to being steeped in considerations of perceptual resemblance between different objects or situations and, as a result, often employs simple forms of heuristics that are rule-of-thumb-like considerations which, while providing a basis for acting, are not necessarily completely accurate or adequate for a given task – that is, they are sort of make-do judgments which often (but not always) have practical value of some kind. Furthermore, whereas System II thinking is good at engaging in logical and/or statistical analysis of a given set of circumstances, System I thinking tends to shy away from logical analysis as well as shy away from statistical or stochastic approaches to a given problem.

Kahneman indicates that System I thinking generates an array of feelings, intuitions, impressions, and interests. System II thinking must take the products of System I thinking and process them further in some sort of logical, statistical, or analytical manner which will inform voluntary behavior.

Moreover, when System I thinking cannot solve a given problem, Kahneman contends that it calls upon the dynamics of System II thinking. Moreover, when some sort of inexplicable anomaly arises as a result of the constructs or models which are issued via System I thinking, System II thinking is called in to try to resolve such anomalies.

Aside from fleeting comments here and there in his book, Kahneman doesn't seem to spend much time asking certain kinds of questions. For example, an obvious line of inquiry is why would a system of thinking that is: Automatic, prone to biases, non-logical, lacking in focus or attention, and inclined to favor rule-of-thumb sorts of heuristics which are often based on impressionistic processes rather than on a careful weighing of evidential considerations be sufficiently aware to realize that a second sort of system of thinking is available, or be sufficiently aware to have some understanding of, or insight into, what that second system of thinking is able to do or what kind of success the second system of thinking might be able to achieve or what kinds of problems the second system is best suited to address, or be sufficiently aware to have the wherewithal to realize that it (the first system of thinking) needs help and manages sufficient humility to

turn things over to the second system of thinking and accept what comes from that system of thinking.

In addition to the foregoing considerations, there is another sort of area which Kahneman does not seem to spend a great deal of time exploring. More specifically, although Kahneman expends considerable effort to demonstrate how System I thinking is subject to biases and is prone to making errors, he doesn't seem to explore whether, or not, System II thinking is also subject to biases or prone to making certain kinds of errors.

He does say that System II thinking is constantly engaged in monitoring System I activity. Nonetheless, aside from referring to logical and statistical considerations, he doesn't seem to indicate how System II thinking might go about coming up with principles, values, methodologies, purposes, forms of critical reflection, or criteria which can be used to determine how to modulate System I thinking so that the latter dynamics complies with issues of truth concerning the nature of a person's essential relationship with Reality/Being.

A number of concrete examples are given in Kahneman's book which point out how System I thinking can go wrong as a result of the way it engages particular, but rather, simplistic problems or aspects of life that can be illustrated by questions, problems, or puzzles that don't require a great deal of time to introduce. For instance, one of the questions he asks is: Whether the letter "k" is more likely to appear at the beginning of a word rather than serve as the third letter of a word.

The answer to the foregoing might be of importance to Scrabble players. Nonetheless, one has difficulty appreciating what relevance such a problem has to do issues of, say, life and death.

Another sort of question that Kahneman writes about in his book is the following one: Is adultery more common among lawyers and doctors, or more likely to occur in relation to politicians. While the answer to such a question probably can be established (And Kahneman provides some clues in this respect), what relevance does such a question have with respect to whether, or not, any given individual should commit adultery, and is System II thinking any better equipped to address the latter sort of issue than System I thinking might be able to do?

For instance, suppose I have a System I perspective which generates an intuition or feeling which indicates that adultery is wrong. What is the source of such an intuition?

Is the foregoing perspective purely a matter of social conditioning or other forms of learning? Or, alternatively, could the idea that adultery might be inherently problematic have emerged from a dimension of being that transcends the rationalistic activities of System II thinking, or does the latter kind of position merely give expression to a bias, and if the latter is the case, then, how do we determine this?

Kahneman indicates that the concept of 'luck' is a recurrent theme of his book. In other words, he believes that 'luck' plays a significant role in every story of success (and, presumably, every story of tragedy) and, consequently, when one examines those kinds of stories, then, he believes that a person can often identify one particular component of those stories which enable one to conclude that if that one component had been different, then, success might not have transpired.

Is the theme of 'luck' a product of System I thinking or System II thinking? What do we even mean by the notion of 'luck'?

What is the physical (e.g., random) or metaphysical principle which governs such issues? Could a System I response provide a more accurate expression to such an issue than System II thinking might offer?

Morton White's notion of causality (previously discussed) would suggest that there are many factors which need to be taken into consideration in order to develop an appreciation for what might have caused a given event or dynamic to occur. Does the idea of luck make a recurring appearance in Kahneman's book because he has used – in a biased fashion – a variety of rational, logical, and statistical operations (System II activities) to try to justify his apparent belief that luck plays a key role in stories of success?

The events of our lives tend to be entangled in a web of causally complex dynamics – dynamics which the idea of "luck" seems to gloss over in an amorphous manner and which allows one to evade a whole series of issues on which a person might wish to reflect. Indeed, the belief that "luck" tends to regulate many of the events of our lives

generates resistance to meditating on the alleged merits of that belief and, perhaps, deny oneself an opportunity to move in a different hermeneutical direction.

For example, let's consider – as briefly as, hopefully, possible – how I came to step onto the Sufi path. If my family had not moved to north-central Maine when I was 12, I would not have been exposed to a variety of opportunities in a small, impoverished town – opportunities which helped induce me to break out athletically, academically, and spiritually in the way that I did. If my mother had not encouraged me to apply to Harvard (and sorry Harvard I had no idea that you existed), then, I might not have gone through an ensuing, chaotic six-year period of bouncing around, among other things, a number of different majors (from: Pre-theological, to: Physical sciences, philosophy, and psychology) as I tried to sort my life out, and, as a result, I would not have entered a honors program in psychology which played its own role in my near-term future. If I had not been able to defer my draft-status until I finished university, and if I had not been on bus to the Charlestown Naval base (to update my draft status vis-à-vis the Vietnam War) and if during that journey a guy walking up and down the pathway between the seats had not been saying: “You don’t have to do this,” and if I had not taken what he said to heart and proceeded to reflect on what was going on in the world, then, I probably never would have gone to Canada. If my first job in Canada had not been as co-director of a street youth haven in Toronto (which my pervious background in psychology had helped me get) had which, because of lack of continued funding, had not gone belly-up, I would not have traveled to another city at some distance from Toronto to apply for a similar sort of job, and, in the process, would not have met a really intelligent high school kid with whom I had a far-ranging discussion, prior to my job interview, about various issues in mysticism . If, subsequently, I had not begun to visit a small, out-of-the-way Buddhist bookstore in Toronto that expanded its offerings and, as a result, began to sell books covering a wide variety of spiritual and mystical topics and provided me with an opportunity to look for books on Gurdjieff (because I had, somehow, come across the existence of a Gurdjieff group in Toronto and began to attend their sessions), I likely would not have come across a book in the aforementioned store one day (and the store’s holdings on Gurdjieff

were very limited) entitled: *The Teachers of Gurdjieff* and, I would not have after bought and read the book which enabled me to discover that some of Gurdjieff's teachers were from a Sufi tradition, and if, for whatever "reason" some of those Sufi teachings had not intrigued me in a way that was different from the teachings of Gurdjieff, I would not have begun to think about finding a Sufi group. Furthermore, if I had not regularly gone back to the Buddhist book store looking for reading material on the Sufi mystical tradition, I never would have visited the store on a particular Saturday – which, normally, was a fairly busy day in the store but, on that day, was completely empty – to find (quite a few months after initially meeting him) the same high school kid with whom I had talked prior to a job interview in another town (a job which I did not get) and who happened to be acting as book clerk and cashier in the store because Scott – whom I knew and who usually served as clerk and cashier in the store but who had been called away on an emergency and, therefore, was not able to serve in his usual capacity and, as a result, had asked the aforementioned young man to cover for him in the store, and although I had been a regular customer in the Buddhist store for years, I had never seen that young man in the bookstore previously, and if, on that occasion, the store had not been empty we would not have been able to have another free-flowing discussion about a variety of topics and if, at one point during that conversation, he had not asked me what I was currently interested in, and when I answered: "The Sufi path," if he had not responded with: "Would you like to meet a Sufi?" and, I would not have had the opportunity to give an affirmative response, and he would not have written out a phone number on a piece of paper which he handed to me, and if, a few days later, the woman who answered the phone when I called the number which had been given to me by the young man had not offered to provide me with another phone number because although her son – with whom I was supposed to speak -- was out of the country, she wanted to help me out, and if I had not called the number she gave me and, subsequently, made arrangements for going to that individual's house and had an opportunity to listen to what I considered to be a very impressive introductory, but very informal, talk on Islam and the Sufi path that was delivered by a young man whose house I was visiting and who, subsequently, would give me the number for his spiritual guide and who, when, I called him, invited me

to supper, and notwithstanding the fact that the meal – according to my bland North American sense of taste – was way too spicy and hot I was not deterred from agreeing to meet with the teacher a second time, when invited to do so, which took place on Christmas Eve, and if I had not had an anomalous experience when engaged in a zikr or chant during that meeting, then, I might never have stepped onto the Sufi path.

I don't know which of the foregoing events (and there are many others which could have been added) one might wish to single out as being the "luck" event that Kahneman could cite as being "the" occurrence which had changed the course of my life. As Morton White taught me a long time ago, causality is a very complex set of events, and this is reflected, I believe, in the way that the days of my life all seem to be intricately related to one another, and the foregoing brief synopsis is only part of what could have been included in describing the sort of causal network that links different aspects of my life.

There is another term which I believe is a much more appropriate description of the previously overview of the indicated series of events than is Kahneman's notion of "luck." That term is "Grace" and the latter concept seems to resonate with the foregoing list of life events in a more vibrantly nuanced manner than does the notion of "luck".

With "luck," things sort of just happen as a function of a coincidental juxtaposition of happenings, whereas in the case of "Grace," life events are a function of something more deeply hidden that is not an arbitrary, random collection of circumstances which, for unknown reasons, seem to hang together. I suppose only time will reveal which of the two foregoing ideas – "luck" or "Grace" – might be mired in some form of bias which needs correction ... although I suppose that if Kahneman is correct, neither one of us will ever come to know what the truth of the matter is.

Kahneman indicates that, initially, neither he nor his former research colleague, Amos Tversky, asked themselves whether, or not, the sorts of biases of intuition which occurred in conditions that were uncertain in nature and in which they were interested in exploring would be found in all forms of intuition. Kahneman goes on to stipulate, however, that he has, since, come to realize that, clearly, there are intuitive dynamics which operate in some fashion other than

being a function of simple System I heuristics, and goes on to cite an example of a firefighter who took his fellow firefighters out of a burning building because there was an undefinable, intuitive 'something' which was bothering him about the sounds, or lack thereof, in the fire that was burning in the part of the building in which his firefighters had been working, and, as a result, he urged the other firefighters to get out of the building, and almost immediately after leaving the structure, the floor of the building collapsed.

While many people think of the foregoing sort of 'expert intuition' as being somewhat magical in nature, Kahneman goes on to suggest that there is nothing magical about such intuition. For example, he refers to the issue of chess masters and how, after thousands of hours of playing and practice, they come to look at the board differently from non-experts because they develop a sensitivity to various cues which can be tied to data in their memories which lead to the 'right' move.

With all due respect to Kahneman (or, perhaps, more accurately, with all due respect, the person – Herbert Simon – he cites who provided the analysis of chess which Kahneman references), the foregoing account doesn't really explain anything. For example, the previous overview of what happens, supposedly, as someone becomes a chess master doesn't actually explain how the budding chess master goes about developing a sensitivity to some cues rather than others, or what the nature of that sensitivity involves and, in addition, that account doesn't explain how such cues come to be tied to certain kinds of memories or how that connection is able to provide answers to the chess problem with which the chess master is confronted in a given set of circumstances.

If chess mastery were always acquired in the way which Simon proposed, then, Bobby Fischer would never have beaten Boris Spassky in 1972. When considering Simon's proposal, one might keep in mind that on his way to the world title prior to meeting Spassky, Fischer beat several grandmasters – Mark Taimanov and Bent Larsen -- by scores of 6-0).

Presumably, the reason why one person beats another person in a game of chess is because, on a given occasion, one of those two individuals sees the possibilities present on the board differently from the way in which the other individual does, and, therefore, irrespective

of whatever cues might be present in a given game and notwithstanding whatever connections might exist between, on the one hand, the position of pieces on the board and, on the other hand, the memories of the two individuals, one of the two individuals sees something that the other person did not ... but, maybe, it was all a matter of “luck.”

According to Kahneman, intuition is just a matter of recognition. However, he doesn't really provide any sort of explanatory insight into how such a capacity for recognition comes into being or what actually has made such a dynamic of recognition possible.

Kahneman contends that both heuristic-based intuitions as well as the intuitions of experts give expression to System I thinking. However, he doesn't explain how one might go about differentiating the source or origins of the two kinds of intuition except that one (that of the expert) is, supposedly, more consistently correct (but, often inexplicably so) than the other (the, allegedly, heuristically-based intuition) and, in addition, the intuition of experts is very likely to be able to take on much more difficult problems of uncertainty than heuristic intuition is able to accomplish.

If someone is not certified as some sort of expert but has an intuition that turns out to be correct, what is one to make of the latter sort of intuition. Is it a function of some simple System I heuristic, or is it a matter of luck, or is it rooted in something more deeply hidden?

On the one hand, Kahneman wishes to treat Systems I and Systems II as kinds of dynamics that can be treated – metaphorically and not literally -- as if they were agents of a sort that are operating when we generate decisions, judgments, or evaluations of one kind or another. However, on the other hand, he is quite clear that this quality of agency is meant to be descriptive and not explanatory and that both System I and System II are openly acknowledged by Kahneman to be psychological fictions which are meant to facilitate critical reflection concerning different aspects of the way we go about cognitively engaging different circumstances.

Nonetheless, he also cautions the reader to keep in mind that neither “system” is actually present in, nor necessarily can be tied, to particular aspects of neurological functioning. In a sense, Kahneman is approaching the dynamics of thinking like clinicians do in medicine.

In other words, medical clinicians often do not necessarily know or understand all aspects of the underlying dynamics that are causing a given biological condition. However, based on symptoms and differential diagnosis, they propose a course of treatment that is intended to treat the presenting symptoms in accordance with the clinicians understanding of what those symptoms mean biologically, and if the diagnosis and treatment work, then, the situation is considered, medically, to be a clinical success even if the medical practitioners didn't fully understand what might have been actually going on biologically or biochemically.

However, if the treatment does not work, then, they either have to rethink the diagnosis or they have to rethink the treatment. Their processes of diagnosis and treatment are like the sorts of heuristic methods alluded to by Kahneman in conjunction with System I thinking, and, when, subsequent events indicate that something is not working, then, they go back to the drawing board, using System II methodology, and try to find a diagnostic and treatment heuristic that does lead to success.

For instance, many medical practitioners believed that hydroxychloroquine or Ivermectin were appropriate ways to treat those who had been diagnosed (via PCR) with COVID-19. Yet, the biological and biochemical action of those two drugs are quite different, and, so, the question arises: Namely, exactly, what was being treated and what was the biochemical nature of that treatment?

There were many problems surrounding the use of PCR protocols as a test for the presence of SARS-CoV-2. Indeed, this (namely, testing for the presence of an infectious agent of some kind) was something the Nobel-winning inventor of the process – Kary Mullis -- stipulated was not a legitimate function of, or use of, his PCR protocol.

Did individuals who tested positive for the presence of SARS-CoV-2 (and did so as a result of the PCR protocol) have COVID-19 (whatever that might be) or was the test a false positive? Furthermore, if it was a false positive, and if the individual was being given hydroxychloroquine or Ivermectin, then what were these drugs treating?

Just because those people didn't get sick after receiving the foregoing forms of treatment doesn't necessarily mean that those

drugs worked or that the clinicians knew what was taking place in the bodies of their clients. After all, if the foregoing “test” was a false positive, and, yet, they were given one -- or the other -- of the two aforementioned drugs and, then, the individual remained symptom free, was this because the drugs “worked” or was this because such individuals never had the alleged disease to begin with and, therefore, would not have gotten sick even if no treatment had been given?

What is the origin of a given diagnosis or treatment? Are those origins a function of a form of expert intuition that is hard to causally capture, or are those origins a function of a form of medical heuristic which suffers from the sorts of biases of intuition to which Kahneman was seeking to draw our attention, and are expert forms of intuition subject to biases of one kind or another, and how does one identify what those biases are in complex situations which can be affected by many different factors?

Kahneman acknowledges that the automatic, fast dynamics of System I thinking do have the capacity to generate complex patterns of ideas, but also indicates that only the dynamics of System II thinking have the capacity to generate thoughts which can give expression to an orderly set of steps. Nonetheless, in either case, we are still none the wiser as how System I does what it does (e.g., generate complex patterns of ideas that can have heuristic value), or how System II thinking does what it does -- namely, generate thoughts which can be arranged in, and by means of, an orderly set of steps that can be modulated in different ways.

Where do thoughts -- whether in System I or System II thinking -- come from? Are they constructs, or computations of some kind (and, if so, what kind of computational or process of construction generates those thoughts), or are they affordances which bubble to the surface in a holistic condition from some mysterious depth of consciousness?

Kahneman admits that neither System I nor System II dynamics can be tied to a specific set of neurological processes. His approach is descriptive of what can be observed and does not provide an explanation for what makes what is observed possible.

Conceivably, there are not two systems of thinking, but just one set of hermeneutical tools which -- according to choice, interests, curiosity, circumstances, and abilities -- can be used in different

combinations. Conceivably, what makes one use of hermeneutical tools faster than some other use of those tools is due to the extent to which biases frame, filter, and govern what is taking place.

Where presumptions, biases, prejudices, and commitments to a given theoretical framework tend to dominate the manner in which a set of hermeneutical tools are, or are not, used, then, the time it takes to engage a given problem or issue and generate an answer of some kind takes less time than if one were to critically reflect on the way that such presumptions, biases, prejudices, and commitments to a given theoretical framework affect the way one engages, perceives, and understands existence. Presumably, biases of intuition can adversely affect both so-called System I and System II thinking.

What makes reason or logic or intuition possible? What counts as being an expression of reason or logic or intuition?

Why do intuitions or thoughts come at one time rather than another? What regulates the dynamics of either kind of thinking – namely, System I or System II dynamics?

Perhaps System I thinking merely constitutes one possible expression of the sort of dumbing-down process that might be imposed on individuals as they go through the schooling process. If this is the case, then, System I thinking entails a series of assumptions, biases, impressions, prejudices, filters, and frames of perception which people are induced to cede their agency and, as such, is not a form of thinking that is natural and indigenous to a human being, but, rather, is a form of indoctrination or propaganda or undue influence or cognitive abuse.

Kahneman would have his readers consider the possibility that System II thinking is better than System I thinking because it has the capacity engage various problems successfully that are likely to be treated in error-ridden ways by System I thinking because of, among other things, the capacity of the former process of thinking to be open to entertain statistical modalities of analysis – something that is not among the tools which are present in System I thinking. Yet, System II modalities of analysis have their own set of presumptions, biases, prejudices, filters, processes of framing, and theoretical commitments which lead to their own kinds of errors.

System I and System II thinking are not so much a matter of reflections of inherent human capabilities as they give expression to different hermeneutical approaches to various sorts of problems, question, and puzzles – each with their own set of presumptions, biases, filters, modalities of framing, intuitions, and each with their own set of vulnerabilities to error and biases of intuition. Consequently, System II thinking is not necessarily any more capable than System I thinking is with being able to successfully engage fundamental issues such as: Truth, values, methodology, essential identity, purpose, meaning, or the nature of the relationship between oneself and the rest of Reality/Being.

Kahneman's work which is, in part, captured by his book *Thinking, Fast and Slow* won a Nobel Prize in Economics. When one goes through the book, one sees many instances in which statistical concepts can be used to engage a variety of practical issues in ways that carry functional implications for an array of economic topics that System I thinking cannot do, and, as such, so-called System II thinking appears to be an attractive way of engaging life, and, yet, the sort of System II thinking which Kahneman is developing and promoting constitutes a rather arbitrary way of engaging life because as important as economic considerations might be, the way in which Kahneman develops System II thinking doesn't necessarily bring one any closer to understanding what makes consciousness, creativity, language, talent, logic, memory, ideas, interests, and curiosity possible, and to the extent that this is the case, then, System II thinking in Kahneman's sense is like System I thinking in the sense that it constitutes a conceptual framework that is rooted in its own set of biases which induce people to adopt habits of thought and complex forms of heuristics which might help to make thinking faster by enabling one to solve certain kinds of problems quantitatively (e.g., statistically) and, yet, which, simultaneously, tend to induce people to lose sight of all of the issues that cannot be successfully engaged through such methods.

When one is dealing with arbitrary conceptual systems of construction – such as System I and System II thinking – those systems tend to run the individual and that is why such thinking, once it has become established as a frame of reference for engaging experience, constitutes a faster way of thinking than is the case when one's

hermeneutical efforts are slowed down by processes of questioning, curiosity, critical reflection that are resistant to either System I as well as System II thinking.

Once an individual is operating in accordance with the dynamics that generate the filters and frames that orient a given paradigm, System II thinking can be as automatic and as difficult to stop as System I thinking is. This is because pretty much everything is referred back to, or run through, the rules and/or principles which govern that hermeneutical way of engaging things.

Under the foregoing sorts of circumstances, the paradigm tends to run the individual rather than truth or a rigorous search for the truth. System II thinking becomes System I thinking, and, as a result, the characteristics of System I thinking – namely, the speed, biased intuitions, automatic-fixed nature, as well as the way in which problems are generated which can't be solved by such a process of thinking – have come to constitute what, previously, had been considered to be System II thinking.

Kahneman stipulates that the way in which the two aforementioned systems interact is a recurrent theme in his book. However, while one could acknowledge and accept the foregoing stipulation, one still would like to know what are the principles or dynamics or considerations or criteria which regulate and modulate that process of interaction, and what is the origin of those principles, dynamics, considerations, and criteria?

How do we go about choosing the way in which System I and System II should interact. What do System I and System II thinking have to do with truth, purpose, meaning, identity, values, methodology, and creativity, and how does one determine if System I and System II thinking are operating constructively with respect to such issues?

Perhaps what is needed is some sort of a System III modality of thinking. In other words, System I thinking might be related to System II thinking, as System II thinking might be related to the sort of System III thinking which is being alluded to here. That is, just as System II thinking is allegedly called upon by System I thinking to address the conceptual messes (errors) which are created by the biases of intuition which often characterize System I thinking, so too, System II

thinking needs to call upon (but is often reluctant to do so) System III thinking to address the conceptual messes (errors) which are created by the biases of intuition which often characterize System II thinking.

Kahneman uses the term “cognitive illusion” to refer to the tendency of individuals to allow their way of thinking to come under various forms of undue influence. Although the example which Kahneman gives in his book concerns the issue of psychopathic charm and how that charm can seduce people in a variety of ways which blinds them to what is actually transpiring, nonetheless, cognitive illusions can be generated through all manner of undue influences involving assumptions, biases, methods, theories, models, conceptual filters, and modalities of perceptual framing, and, therefore, System II thinking is as vulnerable to such cognitive illusions as is System I thinking ... and System III thinking runs the same risk.

Cognitive illusions are falsehoods that obscure the nature of Reality or Being. The problem is that we don't always recognize conceptual illusions when they are present – and merely assume that we are seeing Reality for what it is rather than engaging Reality through a set of filters which are shaped by whatever kind of cognitive illusion is governing the dynamics of those filters and modalities of perceptual framing.

Intuitions can come in the form of affordances or as the result of a process which builds conceptual/hermeneutical constructs. Affordances cannot be constructed, but, rather, can only be received

Affordances are wholes (that is, they are not the result of a process of hermeneutical structuring or computation) which are manifested through certain kinds of veridical dreams, insights, epiphanies, creative inspirations, resonances, and unveilings that are rooted in a ‘something’ that is more deeply hidden than the sorts of hermeneutical constructs which are used to generate the many cognitive illusions which often inform our sense of, or understanding concerning, the nature of Reality.

People use their agency to select which affordances will inform their understanding. People also use their agency to select how to engage and use whatever affordances are made available to them, and people are responsible for the choices which are made with respect to such processes of selection.

In his aforementioned book, Kahneman has referred to the reality of 'expert intuition' and has provided some examples of this in his work. However, there are different kinds and levels of expertise, and, moreover, there are different sets of affordance experiences in which any given variety of expertise is rooted.

System III thinking seeks to establish reliable – i.e., truthful – contact with That which makes intuitional affordances, in the foregoing sense, possible. Such affordances are the language or medium of understanding which can enable one to grasp certain aspects of That which makes possible what is more deeply hidden and which, in turn, makes veridical intuitions or affordances possible as well as – if one is fortunate -- accessible.

Confabulation and the “Healthy” Mind

In 2018, Armin Schnider released the second edition of: *The Confabulating Mind*. He opens the foregoing work with excerpts from an interview conducted with a woman who is referred to as Mrs. B.

If one only considers the transcript for that interview, or even if one had been a guest participant in, or observer of, that conversation, one is not likely to note anything that is strange concerning the woman. When asked questions about why she in the hospital, she indicates that a vessel had ruptured in her leg.

When she is asked if she still is working and, if she is still working, what the nature of her employment is, she relates that, currently, she has a position in the outpatient clinic of a hospital in Geneva. Moreover, when follow-up questions are asked concerning the nature of her work at the clinic, she stipulates that she is engaged in providing physiotherapy for various clients.

When the individual conducting the interview seeks to confirm that she is a physiotherapist, the woman indicates that she is not a physiotherapist. Rather, she is a psychiatrist, but upon finishing her career in psychiatry she became involved in physiotherapeutic activities.

Next, the interviewer indicates that earlier in the conversation the woman mentioned she had been visited by several individuals. The

interviewer's statement prompts the woman to say in response that the visitors had been her brother and mother.

Following the foregoing answer, the woman is asked whether she has any plans for later in the day. The woman answers that she is going to be giving a reception at her home in the evening.

When asked who will be attending the event, she proceeds to provide several categories of attendees. For example, she mentions that her family in Poland will be coming, and, in addition, she refers to colleagues as well some of the physiotherapists who have been caring for her at the hospital as being likely attendees at the reception.

At one point during the interviewer's conversation with the woman – but not juxtaposed to the foregoing exchange – a follow up question is asked concerning how she will spend the rest of the day prior to the reception. The woman indicates that she will be returning home in order to prepare for the reception for which attendees will begin to arrive around 6:00 p.m..

The woman is asked about her age. Initially, she stipulates that she is 40 years of age, and, then, giggles, adding that she is a little older than 40 ... closer to 50.

In reality, she is 63 years of age. Furthermore, most of the information which she has provided during the conversation is not true.

She had been a psychiatrist. Nonetheless, she is not currently – nor has she ever been – a physiotherapist.

Although the woman did have visitors from time to time, she did not have any visitors on the day that the interview took place. Furthermore, even if she did have visitors earlier in the day, they couldn't have been her mother and her brother because they both had died a number of years earlier.

Moreover, on the one hand, when the woman had been a psychiatrist some fifteen years earlier, she had been married to a state official of some kind and, as a result, she and her husband used to hold receptions at their home which were attended by, among others, various Polish officials. In addition, since she had been hospitalized for a period of time, there was no reception being planned at her home, but this fact did not stop her from expressing concern about needing

to prepare for the reception and, on several occasions, leaving the area of the interview in order to try to get ready for the evening event.

During the interview, the woman had not displayed any behavioral signs which might suggest she knew that she had been just making things up, and, therefore, had been engaged in an extensive process of lying. She seemed quite sincere in what she had to say as well as in the manner in which she interacted with the interviewer.

The woman had command of language. Her responses appeared to be relevant to the questions being asked, and her answers were both logically structured as well as had been given without any delay or period of deliberation before she speaks, as if she were searching for ways to further prevaricate.

In addition, her memory seemed to be intact. For example, during one part of the discussion, she is asked a question which requires her to refer back to a previous response that she had given concerning the reception which is being held at her home, and she was able to offer what appears to be a sensible response to the question.

The woman has been selecting various memories from her life and combining them with scenarios which have been constructed within some part of her being. She has been doing this in a normal conversational manner.

A question which is never directly raised or answered during the aforementioned book by Armin Schnider is this: What enabled the woman to select certain memories and, as well, create specific, complex scenarios in a way that appeared to be responsive, logical, thoughtful, rooted in various memories, and clearly communicated via speech. After all, when one is given a more complete picture concerning the woman's life, she obviously is impaired in some fashion, and, yet, none of that impairment seems to be readily apparent if one just takes the conversation on its own terms, and, therefore, the surface quality of her delivery raises the question of: What enabled her to carry on a conversation in a meaningful fashion when most of what was said was not true, and, yet, she believed that what she had been saying, was factual?

Mrs. B had been in a hospital ever since losing consciousness three months previously. Subsequently, medical tests indicated that she had suffered a ruptured aneurysm, and the released blood had

damaged areas of the orbitofrontal cortex (just above the eyes) as well as the basal forebrain, both of which are important suppliers of blood to, and irrigation venues for, that region of the brain.

In addition, the ruptured aneurysm had interfered with the flow of the cerebral spinal fluid that is present in the interior, ventral chambers of her brain. As a result, this interference had begun to create an outward pressure (from the inner ventral chambers toward the interior rim of the skull) that, to some degree, had been squeezing her brain against her skull.

The burst aneurysm was surgically repaired. Furthermore, a fine tube was introduced into her ventricular system in order to relieve the pressure that had been building up and, as was indicated previously, had been generating a pressure that was squeezing her brain against the interior of her skull.

For a month following the foregoing procedures, Mrs. B had behaved in a very apathetic manner, unwilling to engage the world or speak with anyone. Several weeks after being transferred out of her post-surgical unit, she began to snap out of her apathetic state, and, as a result, she began to interact with, among others, those who were attending to her.

Initially, when she began to work her way out of her previous apathetic condition, she behaved in a very confused fashion. For example, her speech was largely incoherent and her behavior seemed chaotic and disorganized.

Eventually, her speech transformed from incoherent to coherent. Furthermore, her behavior also gradually became increasingly organized.

One lasting impact of her burst aneurysm involved her inability to keep new data in memory. She could be introduced to someone, and she would soon forget that she had be introduced to such an individual previously, and, as well, she would quickly forget information concerning her therapy sessions.

On the one hand, she didn't seem to have any clear understanding of how severe her memory problems were. On the other hand, she readily admitted that her memory was not very good which would suggest that in some way there was an understanding within her

which indicated that something was wrong with her even if she was not aware of just how extensive the damage was.

Given the foregoing considerations, one can raise, yet again, a question that was raised earlier and which, as noted earlier, was not addressed anywhere in the aforementioned book by Armin Schnider. More specifically, if the memory of the woman had become so tattered due to the damage done via a burst aneurysm, what, eventually, enabled her to be able to give expression to a narrative that was: Logical, coherent, intelligible, varied, sincere, responsive to questions, did not involve prevarication, and, while it did draw upon events from the past was, nonetheless, largely false in nature?

Moreover, the narrative that was expressed by her was not always the same. Her language and behavior were varied in nature, and, consequently, she did not seem to be stuck in some sort of loop which was just repeated, more or less, word for word, as if working from a set script.

For example, there were times when she would abruptly leave a therapy session. When doing so, she indicated that the reason for her departure from the session was because she had to attend to an emergency admission at the clinic.

Once she left the therapy session, she would wander about the floor in search of the individual who, supposedly, was being admitted on an emergency basis. So, while, on the one hand, the foregoing narrative touched upon idea that she was physiotherapist who was employed by the clinic – an idea that had been voiced during the interview alluded to above – her behavior was modulated and altered in a meaningful way beyond just answering the questions that had been asked in an interview.

She was thinking about things while engaged in various activities. For unknown reasons, she would decide to act on those thoughts on different occasions, but the decision to act on her thoughts was not robotic or always expressed in the same way.

On other occasions, she would be walking about the hospital unit and happen to meet her therapist. During some of these interludes, she would indicate to the therapist that she felt she had been doing a good job and floated the idea that she believed receiving a contract

extension as a psychiatrist might be in order given the quality of her work.

Sometimes her communications had to do with physiotherapy, and sometimes her verbal overtures were focused on her psychiatric work. Irrespective of which kind of job was being discussed, she believed she was employed by, or worked in, the clinic in which she was a patient, and, as a result, her behavior was guided by those beliefs.

On some occasions, when the woman had begun speaking with Dr. Schnider along one of the foregoing lines of discussion, Dr. Schnider would indicate to her that he was not her work supervisor but, instead, he would inform her that she was a patient, and he was the medical doctor who was treating her. She would respond to such revelations with words to the effect that she knew he was not her work superior but was a professor of psychiatry.

Apparently, the last name of her current therapist – namely, Schnider – was very similar to the last name of someone who actually had been her superior when she was serving as a psychiatrist some fifteen years earlier. So, if she understood that there was a difference between her therapist and someone who had been her work superior who had very similar last names, then, however dimly it might be present, there seemed to be another thread of memory that could become entangled in her communications in creative ways.

If she were not watched carefully, she would try to leave the facility. If she was stopped from doing so, she could become agitated, and forcefully inform whoever had stopped her that she had finished her work and needed to return home so she could prepare for the reception which was going to take place in the evening.

Sometimes, when her intentions were thwarted, she could become assaultive. For instance, on one occasion, the person who had been assigned to watch over her had tried to stop her from going into the kitchen area, and when he did this, she began to beat him with the cane which was in her hand and that she used to help her walk about the unit, and when later asked to explain what was going on, she would disclose that she needed to go into the kitchen area to prepare a menu for the forthcoming evening reception and the young man was preventing her from doing what she needed to do.

On another occasion which involved a home visit, she slapped her husband across the face after she had opened the fridge only to find it relatively empty. The husband's sin was to have failed to secure the ingredients that she believed would be necessary to prepare for the reception that evening.

Behaviors could be varied and communications could be varied. However, the logical, organizational structure which seemed to be the gyroscopic-like form of orientation that set her navigational journey through a given environment was rooted in just a few ideas such as: Psychiatrist, physiotherapist, work, reception, helping people, menus, responsibility, and preparation.

The foregoing ideas could be woven together instantaneously in a variety of delusional modalities which tied communication and behavior together in ways that seemed to be meaningful, intelligible, ordered, purposeful, capable of being expressed in sentences or acts which could be varied in nature and, to different degrees, could be interpreted by someone who did not know her condition as being, to some extent, appropriately responsive to changing environmental circumstances. Those behaviors and communications were rooted in certain memories that had involved past events (but various aspects of those memories did not remain completely intact, or true to the original memory, but, instead, were often modified in various ways by the woman) and such understandings were being used by the woman to set a course for trying to navigate her way through various aspects of her current life.

She did not confabulate in conjunction with all circumstances. The determining factor seemed to have do with the period in her life when a given memory was formed.

More specifically, if events happened more than twenty years ago, in her life, she could accurately remember the details of many of those events as well as the names and identities of the people who were part of her life during those times. However, her memories of the last 15-20 years of her life were largely absent.

When asked questions about events 20, or more, years in the past, she would not confabulate but provide accurate answers. Moreover, if she were asked questions about various events during the last 15-20

years – say, 9/11 – she would not confabulate but indicate that she wasn't familiar with that topic.

Confabulation seemed to be most likely to occur when she was queried about various aspects of her on-going life. In other words, because Mrs. B could not retain new information, she often would be faced with having to respond to questions about current existence that somehow, would have to draw upon non-existent memories concerning the present, and, it was these sorts of circumstances which seemed most likely to prompt a confabulation, and since – due to her condition of anterograde amnesia which had been due to a burst aneurysm – she would not remember in what confabulation she previously had been ensconced and, consequently, she would proceed to provide some combinatoric edition of the themes (e.g., psychiatrist, physiotherapist, reception, work) which formed the woof and warp of her confabulations.

Why would one kind of confabulation (say, one having to do with her being a psychiatrist) be given on one occasion by her, while on some other occasion another confabulation (for example, being a physiotherapist) would be given by her, and, then, on still other occasions, the confabulation would be driven by the need to prepare a meal for a reception to be held in her home that evening? What was regulating the confabulations which would be generated on any given occasion and which were done in so stealthy a manner that Mrs. B had no idea that what she was saying doing was confabulatory or delusional in nature?

If she were shown photographs of people she had never seen, she would indicate, truthfully, that she didn't know who such individuals were. If, on the other hand, she were shown photographs of people with whom she had been interacting at the hospital over a period of time, she would either, on the one hand, indicate that she did not know the person or, on the other hand, she would confabulate and invent an identity for the individual that was depicted in the photograph and, then, proceed to filter various aspects of her life that were transpiring on that occasion through the colors and characteristics of the confabulated identity just given.

For instance, on one occasion, she was shown a photograph of her therapist as well as the picture of a neuropsychologist with whom she

had been working and proceeded to identify them, respectively, as being, in the first instance, a riding instructor and, in the second instance, a stable-girl who worked at a horse-riding school that Mrs. B believed she was attending. Then, she would introduce the forgoing confabulations as memories concerning an event – i.e., going to a riding school – that she claimed had taken place earlier in the day.

The questions that emerged earlier in this essay, have risen to the surface once again. In other words, what was the nature of the dynamic within Mrs. B that was constructing such confabulations and why did she often treat such confabulations as being rooted in on-going memories concerning: Her profession, as well as what she was doing at the hospital, and what she was getting ready to become involved in later in the day?

At one point in her treatment -- when she was able to leave the hospital and return home -- she eventually lost “sight” of one of her go-to confabulation themes. The confabulation theme which no longer accessible to her concerned the idea that she needed to make preparations for a forthcoming reception in the evening and, in time, this is the idea or belief or memory which disappeared from her confabulation repertoire.

Under certain circumstances, Mrs. B continued to have a very difficult time differentiating whether something was real, or a memory, or a thought. Schnider does wonder what induces people to confabulate, but he never actually resolves that wonderment.

In the last part of his work: *The Confabulating Mind*, he goes about proposing a theory which references something that is termed “orbitofrontal reality filtering” (ORF). This region is believed to give expression to a facility in the brain that enables human beings to be able to synchronize thought with on-going ontology and, in the process, adapt thinking in ways that enable the individual to engage a given aspect of reality/ontology in functionally appropriate ways.

Earlier in his book, he explored a variety of ways which damage regions of the brain which are correlated with what he refers to as orbitofrontal reality filtering. For example, the aforementioned Mrs. B is someone whose burst aneurysm adversely impacted the foregoing regions of the brain and, as a result, her confabulations were considered to be due to the way in which the regions in her brain that

are responsible for orbitofrontal reality filtering were damaged when her aneurysm ruptured.

Although, during his book, Armin Schnider does go into considerable detail explicating the research that purports to correlate how damage to regions in the brain that are believed to be closely linked with the dynamics of orbitofrontal reality filtering can be adversely affected by damage to different aspects of the brain regions which are associated with such filtering dynamics, nevertheless, during his descriptive and explanatory efforts there is something that he doesn't appear to touch upon. More specifically, he doesn't account for: Why damage to the regions said to be associated with orbitofrontal reality filtering actually lead to the generation of specific kinds of confabulations; or, why such confabulations are expressed on some occasions but not others; or, what it is about the neurological damage involving the brain regions associated with orbitofrontal reality filtering that undermines a person's ability to differentiate among memory, reality, and thought in one way rather than another?

In other words, the theory which is proposed by Armin Schnider in the aforementioned book doesn't actually account for why confabulations occur, or why they tend to be rare.

To be sure, the rarity of the confabulation phenomenon in which he is most interested could be due to the possibility that the nature of the damage to regions which are believed to give expression to orbitofrontal reality filtering must be "just so" in order for confabulation of a certain kind to be forthcoming, and because such a specific kind of damage to occur does not occur frequently, then, confabulation of a certain kind would be rare.

However, the foregoing possibility doesn't explain how such damage induces conditions which are amenable to confabulation. In addition, his theory doesn't account for how confabulations derive their thematic content, or why they are emerge at one time but not another, or why they manifest qualities of logic, coherence, order, and meaningfulness that can be communicated intelligibly to other people through the language and behavior of individuals whose damaged neurological regions of their brain have been correlated with orbitofrontal reality filtering dynamics.

While Armin Schnider does clearly indicate in his book why he believes that damage to neurological areas that are associated with orbitofrontal reality filtering appear to be deeply involved in the phenomena entailed by the notion of confabulation, he never actually explains the neurological dynamics which make such filtering possible. In other words, he doesn't provide any explanation for how the indicated regions of a healthy brain which are correlated with processes of orbitofrontal reality filtering are actually able to differentiate among memory, reality, and thought, and, if he can't provide an account which explicates how an intact brain engages in orbitofrontal reality filtering, then, I'm not sure how he is going to provide a tenable account concerning what happens in such regions of the brain when, for whatever reason, they become dysfunctional in a particular manner.

During the course of his book – which despite my critical reflections concerning his perspective, I quite enjoyed and through which I learned a great deal – he puts forth a considerable amount of experimental data in his book which indicates, as intimated earlier, that the sort of confabulation exhibited by Mrs. B is quite rare. While what he says might be true with respect to brain injured individuals, nonetheless, I believe that confabulation is much more common than he seems to suppose, and, perhaps somewhat more surprising – if unnerving – is that the commonality of confabulation takes place on a regular basis in supposedly undamaged, healthy brains.

To use the terminology of Daniel Kahneman, people who are operating out of a System I kind of thinking tend to confabulate a great deal. More specifically, when such systems of thinking encounter issues, questions, and problems which are above their pay grade or beyond their level of competence, and when such individuals are asked questions about their system of thinking in conjunction with various anomalies which are entailed by that way of thinking, many people tend to confabulate – that is, they generate a response which tends to be automatically filtered by whatever hermeneutical framework is orienting their engagement of reality and which, as well, is rooted in heuristics (e.g., formulas of one kind or another) that are not capable of handling whatever kind of challenge is inducing errors in their thinking dynamics.

However, because the delusion at the heart of their confabulation is meaningful to them and helps them to make some sort of sense of their experience, they are likely to dismiss such challenges. The dismissal is not about facts or evidence, but, rather, the dismissal is because, emotionally, hermeneutically, and psychologically, they feel more comfortable and secure sticking with what they believe they know than having to deal with the fallout from beginning to question the tenable of their current system of thinking.

The impressions and intuitions that are modulating the dynamics of System I thinking in a given case tend to be functions of the paradigmatic considerations that are framing that mode of thinking. As a result, when an individual encounters experiential anomalies which cannot be resolved by the current edition of System I thinking, then, a person's sense of understanding breaks down, but, instead, of slipping into a surrealistic condition of derealization which is painful, anxiety-inducing, and quite debilitating if the individual should admit to himself, herself, or themselves that one doesn't really know what is taking place, individuals frequently will give expression to a confabulated narrative that is rooted in various rules, heuristics, memories, and ideas that are associated with a particular edition of System I thinking.

The individual might sincerely believe that what he, she, or they are saying is true because they are unaware of the 'something more deeply hidden' (i.e., an "unconscious" which is actually quite conscious and has access to an array of hermeneutical tools that operate beyond the horizons of surface consciousness but whose products are accepted by surface conscious as if the person were part of some 'cargo cult.') ... an "unconscious" that is able to construct intelligible confabulations to which the individual's surface consciousness cedes agency since committing oneself to such a limited and problematic form of awareness is, nonetheless, a way of 'saving appearances' of one's System I thinking and, perhaps, more importantly, if an individual cedes one's agency to a process of confabulation, then, this might help the individual to avoid having to stare into an abyss which is beginning to stare back at the individual as well as taunt that person in various ways with the fact that, perhaps, one doesn't know as much as one believes one does.

Like some of the people who were discussed in Armin Schnider's book, *The Confabulating Mind*, many people who are under the influence of System I style of thinking suffer from a sort of anterograde amnesia. In other words, they have difficulty remembering and integrating new information which is inconsistent with their understanding and often respond to such new, problematic data (i.e., anomalies) by engaging in some form of confabulation which seeks to stitch together different components of their edition of System I thinking in a way that is meaningful, purposeful, and exhibits some heuristic tools (e.g., formulas, laws, rules) which help the individual order his, her, or their life and provide a means of emotionally, hermeneutically, and psychologically orienting oneself with respect to existence.

One might also want to keep in mind that, like the patients in Schnider's books (for example, Mrs. B), individuals who are under the influence of some paradigmatic or hermeneutical form of System I thinking can be observed to give expression to an array of combinatoric arrangements of various idea, themes, and heuristics which are present in their mode of thinking. However, although their confabulated defenses or explications of their System I kind of thinking might have qualities of: Logic, structure, rationality, order, meaningfulness, responsiveness, and the like, nonetheless, as was true in cases such as Mrs. B, the presence of those qualities does not necessarily mean that what is said or done is free from delusional considerations, and, therefore, serves as a potentially very rich breeding ground for confabulatory perturbations.

Furthermore, one might wish to reflect on the fact that when some people are operating through a condition of System I thinking which enables confabulation to take place, then, as was previously noted in conjunction with Mrs. B, those individuals might become assaultive and violent when their narratives are interfered with or disturbed in some fashion. People who are operating out of a condition of System I thinking and who are inclined to confabulate in relation to such thinking can become quite violent and assaultive – as was vividly and too frequently demonstrated, for instance, on many occasions during the reign of COVID ... but many other historical examples of confabulating System I thinkers could be given which illustrate the

connections among System I thinking, confabulation, and an inclination toward violence.

Individuals whose brains have been damaged or traumatized and who confabulate are not displaying a behavioral phenomenon that is being caused by the aforementioned damage. Rather, the foregoing sorts of individuals are – according to whatever that person’s condition permits -- resorting to a heuristic which can be found in the hermeneutical tool chest of most individuals.

The degree and kind of neurological damage present in an individual might constrain or modulate the way in which confabulation is manifested, or whether it is manifested at all. However, the capacity for confabulation tends to be present in all of us quite independently of the foregoing kinds of damage.

The rarity of the confabulation phenomenon in brain-injured individuals has do with a given person’s ability, or lack thereof, to be able to access, or be accessed by, confabulatory forms of communication. In addition, whether, or not, confabulation takes place depends on whether, or not, an individual is sufficiently cognizant and aware to be in a position to be able to give, or withhold, one’s consent concerning the ceding of one’s agency to such phenomena.

Moreover, if one’s condition – whether injured or healthy – permits one to make such a decision, then, whether, or not, ensuing confabulation takes place will depend on the choices which one makes in that regard. Mrs. B confabulated when she did because it served as a coping mechanism which provided her with a means to navigate certain situations for which she had nothing in memory which could help guide her.

She gave her consent to a idea or understanding (that might have been interpreted as a memory) which emerged in her consciousness. She did not know how the idea arrived in consciousness – any more than most non-brain injured individuals have any idea how ideas bubble to the surface of consciousness – but the confabulatory process was a heuristic which, to a certain extent, worked for Mrs. B in as much as it provided her life with a sense of meaning, existential orientation, purpose, and behavioral direction.

One might also consider the possibility that the confabulations provided her with a degree of control. After all, irrespective of

however devoid of reality her confabulations might have been, nonetheless, they very likely helped her to feel like a person with agency who, at least to a degree, was able to make decisions which offered a small degree of control in her life even though the premises underlying those decisions were problematic and delusional.

So-called normal people engage in a similar sort of behavior. For example, one, or more, of the beliefs which is held by a given “normal” individual might be delusional in nature, and, yet, that person might use such a premise to modulate and structure how they navigate their way about life, and might continue – out of habitual inertia – to employ such a delusional belief even after they begin to suspect, for whatever reason, that such a belief might not be – either partially or completely – true.

The foregoing sorts of choices concerning consent with respect to the ceding of agency are made many, many times on any given day. However, the ceding of agency is such a subtle affair – like a very slight nod in a silent auction – and, consequently, unless one is paying attention to what is transpiring in consciousness and knows for what to look, as well as is able to acknowledge the presence of such a subtle dynamic for what it is when one observes it, then, one will difficulty understanding how one proceeding in one direction rather than another.

Confabulation in brain-injured individuals tends to be rare because their injuries are preventing the person from having ready, unimpeded access to the dynamics which make confabulation possible. Confabulation in “normal,” “healthy” individuals is far more common because the latter individuals don’t have any neurological injuries which would interfere with being able to access, or be accessed by, the dynamics – on one, or another, level of ‘something more deeply hidden’ – which make confabulation possible.

Of course, a person who is under the undue influence of a problematic form of System I thinking could be fortunate enough to possess sufficient wherewithal and curiosity to appeal to aspects of hermeneutical functioning which Kahneman refers to as System II thinking. However, oftentimes the truth of the matter is that System II thinking is just a more sophisticated, complicated form of thinking

that tends to be vulnerable to being transformed into another edition of System I thinking.

Shifts in paradigms are like a movement away from a certain kind of System I thinking in which so-called 'normal science' is busy with applying the heuristics (e.g., various arrangements of formulas, rules, theories, and models) that, previously, have bubbled to the surface from 'something more deeply hidden' that generates conceptual cargo which arrives in consciousness through dynamics that are not understood but which, sometimes, give expression to useful forms of heuristics. Unfortunately, over time such heuristic tools often become relatively inelastic, static, or closed, and, therefore, they begin to encounter an increasing number of experiential anomalies which cannot be adequately handled by those heuristics or plausibly explicated by the hermeneutical form of the paradigm which frames and provides the interpretive filters that inform and orient System I thinking.

System II thinking might lead to some new paradigmatic way of hermeneutically processing experience, and along the way, give rise to new modalities of heuristics as well as new hermeneutical forms of framing and filtering experience. However, System II thinking is often just a phase shift in a person's understanding in which that sort of thinking, sooner or later, will transition into another form of System I thinking when new anomalies and problems emerge which that edition of System II thinking cannot adequately handle.

The confabulations of System I and System II thinking might be more: Complicated, nuanced, flexible, creative, varied, detailed, and intricate than are the confabulations of a person such as Mrs. B who appeared in the book by Armin Schnider. In addition, confabulations associated with the two systems of thinking might entail many more heuristic tools, principles, and methods than does the limited possibilities which are accessible to Mrs. B.

Nonetheless, delusional thinking is delusion thinking irrespective of the degree of complexity, creativity, detail, nuance and flexibility which might be present. Confabulation, in whatever context it occurs, refers to a person's inability to differentiate between one's understanding and the nature of reality despite the fact that there are differences or anomalies which are clearly present and which

constitute a form of conspicuous disconnect between such a person's understanding and the phenomena of reality which are impinging on that individual.

We live in times when a great deal of what is described as giving expression to knowledge might, instead, merely be delusional in nature (e.g., see some of the work of Marcia Angell and John Ioannidis that touches on this issue), and, thereby, lend themselves to confabulation as a way of trying to save the appearances of their defective modalities of understanding, or lack thereof. Unfortunately, the foregoing disease or conceptual rot is not limited to just a few areas but has led to considerable debilitation in a wide variety of hermeneutical areas, including: Education, history, religion, government, epistemology, climate, constitutional law, virology, intelligence (in several senses), agriculture, evolution, morality, biology, economics, human rights, energy, justice, banking, mathematics, ecology/environment, medicine, militarism, psychology, technology, pollution, journalism, artificial intelligence, directed energy, vaccinology, mind control, immunology, quantum physics, dimensionality, cosmology, and health.

In light of the previous considerations, one is left with the same problem that confronted Armin Schnider. More specifically, what makes confabulation possible – irrespective of whether it takes place in conjunction with a relatively intact brain or in conjunction with a brain which has been damaged or traumatized in some way?

Human beings have a learned inclination to try to systematize experience, reality, and whatever the truth is considered to be. However, the truth might not be subject to systematization.

Resisting the Systematization of Understanding

As indicated previously, Lao Tzu stipulated: "That which is told, cannot be the eternal Tao." The Upanishads mention the phrase: "Neti, Neti" – 'neither this, nor that' as a way of referring to the way that Reality/Being resist being pinned down to being this or that. Indigenous people of North America speak of: "The Great Mystery." The Christian mystical tradition refers to the "Cloud of Unknowing." Sufi's indicate that Dhat or Essence (and these terms are considered as a way of alluding to, rather than constituting an instance of identifying

or naming) is Unmanifest and, therefore, cannot be explicated through that which is manifest, but, rather, the Unmanifest is what makes the manifest possible ... and how this is done, we know not. And, finally, although there is some controversy over precisely what was meant, Wittgenstein did say: "Whereof one cannot speak, thereof one must be silent" – perhaps he was on to something more than he knew.

The one question that all of us can ask ourselves is this: Why do we cede our agency to this or that perspective, idea, memory, or sense of reality? All we can do is to try to carefully observe all of the factors which impinge on that ceding dynamic and try to rigorously employ a form of critical reflection which is not tied to any form of systematized thinking so that we might struggle toward developing a reliable manner of experientially 'tasting' understandings which are able to differentiate between, on the one hand, the sort of systematized constructions which engender confabulation and, and on the other hand, the phenomena of affordances which – when veridical (a difficult issue to determine) – serve as loci of manifestation of That which makes them possible, and, then, mediate on what we don't know as much as what we think we do know.

'The-sound-of-one-hand-clapping' koan resonates with the foregoing issues. All one has to do is determine whether that sound comes from the right hand or the left one and, whether, or not, this makes any difference to the Way of Reality or Being – which, presumably, it does make a difference how one understands the nature of that dynamic.

There is a physical and metaphysical handedness which is manifested throughout Reality/Being. That handedness is the Truth.

The task is not to impose our systematized constructions upon Reality, and, in the process distort, if not obscure, the latter. Rather, the task is to discover those means – via veridical affordances (which can arise from different level of existence) – that enable us to merge horizons with the Truth to whatever extent this is humanly possible ... to discover methods which allow the Truth to flow through us as best as our potential will permit rather than to entangle ourselves and busy ourselves and occupy ourselves with systematized modalities of thinking that when they flow through us tend to lure us into automatic, inelastic, static, closed, anomaly-ridden modalities of

thinking which depend on limited, and limiting, forms of heuristics that might have short-term value but which also are capable of engendering long-term problems because of the ways in which those modalities of thought – irrespective of whether they are referred to as System I or System II thinking -- interfere with our capacity to gain access to, or have the opportunity to be accessed by, Reality/Being, as well as undermine our capacity to be critically receptive with respect to what emerges from that access so that those dynamics might flow through one and permeate our being in as an unadulterated fashion as possible.

In the Introduction to her book: *Willful Blindness: Why We Ignore the Obvious at Our Peril*, Margaret Heffernan recounts how, and when, she, first, came into contact with the notion of willful blindness. While reading the transcript that covered the trial for Kenneth Lay and Jeffrey Skilling who were defendants in the 2006 Enron accounting scandal trial.

Toward the end of the trial, the transcript indicated that the judge (Simeon Lake) instructed the jury on certain points of law. One of those pointers had to do with the idea that if a person – in this case, a member of the jury – finds that an individual (e.g., a defendant) behaved in such a way that the behavior resulted in a process of deliberately shielding, evading, or blinding that individual from the existence of pertinent facts, then, the person (i.e., member of the jury) who comes to such a conclusion is entitled to infer that the individual who deliberately blinded himself, herself, or themselves with respect to such facts possessed knowledge of whatever that individual was seeking to blind himself, herself, or themselves.

According to foregoing legal precept, a person is responsible for acting, or not acting, in accordance with what that person reasonably, should have known or understood to be the case in a given set of circumstances. Moreover, if there is evidence to indicate that such an individual took steps to avoid, evade, ignore, or blind himself, herself, or themselves from a given fact or set of facts, then, someone who is listening to such testimony is entitled to infer that notwithstanding a person's denial concerning possession of such knowledge or understanding, nonetheless, the act of seeking to taking steps that have the effect of deliberately blinding oneself from the existence of

one, or more, facts constitutes a tenable basis for inferring that such a person actually did have knowledge of whatever fact that individual might be seeking to deny he, she, or they had knowledge of.

Willful blindness is the act of seeking to shield oneself from having to admit (to oneself or others) that one did actually know something that one has sought to deny that one knew. A little later in the introduction to her book, the authoress of the foregoing book indicates that she is interested in seeking to better understand why anyone would deliberately seek to keep oneself in the dark concerning some given fact or set of facts.

She goes on to indicate that the condition of willful blindness does not necessarily apply just to individuals. It can characterize the behavior of groups, institutions, corporations, and governments as well.

Her book is filled with examples which show how willful blindness can seep into, and shape, behavioral decisions that take place a wide variety of circumstances. The many examples to which her book gives expression indicate that willful blindness is not just a matter of trying to obscure the truth in a court case, but, affects the way we go about selecting what to choose to emphasize and what we choose to ignore, as well as the way in which we choose to go about such processes of emphasis and de-emphasis or marginalizing.

Although her book does not engage the issue of willful blindness in the following manner, nevertheless, I feel that is considerable resonance between her perspective and the position being put forth here. If one steps away from a legal-like definition of willful blindness, one could characterize willful blindness as being a dynamic process of internal gaslighting that actually takes place within many of us on a daily basis.

When willful blindness is operative, we allow ourselves to live in a twilight region of awareness in which the potentials within us that are inclined to deny or resist the truth seek to constrain the potentials within us that are inclined to acknowledge and comply with the truth. The former potentials are constantly engaged in a process of gaslighting which seeks to induce the latter potentials to not perceive or not acknowledge something that is, very likely, the truth of a matter.

When willful blindness occurs, a truth of some kind is decried, disparaged, and ignored so that agency will not be ceded to the memories, ideas, principles, understandings, or the like which give expression to such a truth, and, usually, the reason why those truths are left to wither in the twilight of awareness is because there is a vested interest that some aspect of an individual has which is threatened if one were to begin ceding agency to behaviors that were aligned with those truths.

Willful blindness is a heuristic that can be employed in either System I and System II thinking. In addition, if one is not very careful, then willful blindness can worm its way into System III modalities of understanding.

Willful blindness often involves confabulation. Such confabulation is a coping mechanism that seeks to smooth over the cognitive dissonance that arises as a result of the tension and stress which is generated by conflicting hermeneutical treatments of a phenomenon, event, experience, memory, idea, or piece of data.

Confabulation offers a narrative that could assist one to cope with the manner in which we often try to gaslight ourselves, or allow ourselves to be gaslighted by others, with respect to any number of issues, topics, problems, questions, methods, conclusions, and behaviors. However, as Margaret Heffernan makes clear in her book, there tends to be a huge cost to oneself and/or others when we cede our agency to such confabulations and try to hide from the evidence to which we have access which strongly indicates that the confabulations in which we immerse ourselves only exist in order to try to prevent one from taking responsibility for acting, or not acting, in a way that goes against what that part of us which seeks to resist truth considers to be a threat to some questionable or untenable vested interest to which one has previously ceded his, her, or their agency.

Your mission, Mr. or Ms. Phelps, should you choose to accept it, is to seek to determine what, if any, confabulations, instances of willful blindness, as well as cases involving a ceding of agency to untenable forms of System I and/or System II thinking, along with identifying whatever problematic expressions of System III understandings that might have been perpetrated in the previous pages of this essay. Good luck to you and your IM forces, and be sure to keep in mind the

possibility that some manner of confabulation, willful blindness, or problematic forms of ceding agency to whatever modalities of System I, System II, and System III dynamics that you favor might have infiltrated your approach to the foregoing mission and, as a result, biased or compromised your assessment of the situation.

Bibliography

Sources for the ideas of various authors that are explored in the foregoing material are referenced in the text of the essay to which this document gives expression. The following list of books refers to facets of my research which lends some degree of support to many considerations that arise – directly or indirectly – as a result of different aspects of the meditations which have taken place during the essay. All of the following works are available, for free, through:

<https://www.billwhitehouse.com/press.htm> ... no e-mail or other information is required from those who are interested in downloading whatever they like via the foregoing web page. All of the following works are also available for free downloading through:

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