

## Handouts for Discussion-4

Dear workshop attendees,  
I have thrown together an edited (and in some places a little mangled) selection of posts from the MBT Forum (Go to the MBT web page [www.MyBigTOE.com](http://www.MyBigTOE.com) and click on "Discussion groups") that I think you may find interesting.

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### 1 OOB – Psi uncertainty, backward causation, and simultaneity

Tom: Depending what you mean by the words, one could say the past, present, and probable future all exist at once -- they all exist in data bases (can be accessed from the present) at any time. on the other hand, I think such a statement is often more confusing than helpful because it leads, if taken literally, to a logical impossibility usually ending in a denial of free will. Free will choice (any real choice) in the present requires a unique and separate before (future) and after (past) state – or the choice is meaningless.

A "many worlds" concept that executes or actualizes the logic that everything that can happen does happen, also leads to a denial of free will -- if every possibility is actualized, there is no choice, just process.

No free will implies no possibility of growth or evolution and thus no point or purpose -- i.e., no consciousness.

"Several worlds" that proportion a beings awareness (90% in this reality frame, 4% in another and 6% in yet another reality frame) would theoretically work but this concept is not likely to produce enough additional significant growth to warrant the extra complexity.

Seven (and others) have been getting it mostly right in the posts above. Seven said:

"I do know that there are a significant quantity of experiments out there by Leibovici, Jahn, Dunne, and others, including the delayed choice Physics experiments, that appear to "prove" backward causation. The trick to the result, it seems, is that the past that is influenced must be "unobserved" by the conscious observer. They must not know the result of the past they are trying to influence. This leads me to believe that in some way the unobserved past is also a probable past, not existing until it is observed in the "present". In some ways the "past" is also the "future" in these instances."

Tom: This is very close to the truth of the matter. The present defines what we call reality. Measurements in the present (the perception of information) define what probable future and uncertain past will be actualized into the minds of those interacting within the present moment. Remember – reality is just personal data delivered to a consciousness. The Virtual Reality Rendering Engine (VRRE - a metaphor for the source of our individual and shared data) can give and the VRRE can take away – its just data. We get the data and that defines our reality.

There is, in our PMR rule-set, a requirement for consistency – otherwise PMR would not be a very good or effective trainer. The Psi uncertainty principle requires that the existence of any inconsistency (local psi violation of the PMR rule-set) must be surrounded by enough uncertainty such that the PMR consistency requirement appears to hold in the minds of the many (rule-set consistency cannot be proven to a certainty to be invalid). This arrangement allows for whatever is uncertain within the PMR past or future to be modified by PMR intent/choice and then actualized in the present moment -- which leads to defining the present PMR reality.

Uncertainty in the past implies a probable past. Be clear that this uncertainty is the uncertainty in the PMR so called “objective” record. Uncertainty within this “objective” record is not reflective of uncertainty in the state vectors that make up the actualized past data base – everything is accurately recorded there.

PMR “objective” reality is defined by the individual and collective subjective perceptions, beliefs, interpretations, and memory of its players. Each player lives in his own personal reality and interacts with other player’s personal realities and with “the set” (environment) which has evolved according to the rule-set. Together they produce (more or less haphazardly) an “objective” record of what they (the recorders) think/believe happened – these are called “facts”. Because players must rely on belief based and experience based individual subjective interpretation and because they only selectively produce recorded “facts”, there is much room for uncertainty in the “objective” PMR record. The uncertainty in the PMR record, and the ability to manipulate “past events” within the bounds of that uncertainty by present intent, is constrained by (must be compatible with) the probabilities associated with the choices that make up the unactualized past. [Recall that the probabilities associated with un-actualized past choices are the same probabilities that were earlier associated with those probable future choices (the probable future that was not actualized by present freewill choices) that become the unactualized past.

A free will intent generated within consciousness is the only active ingredient – it is the “motive force” that moves or changes the data of consciousness. Intent can modify the probabilities within the probable future database (making a potential event more or less likely to be manifested in the present because a “measurement” collapses the probability wave to the most probable event). Intent can also modify the probabilities of past actualization (within the uncertainty associated with the “objective” past). Because of that intent, a potential historical event (or its effect) will be more or less likely to be manifested into the awareness of the present moment because it is again a “measurement” in the present that collapses the past or future probability wave to the most probable event.

So, the prayer group using its intent to modify the healing of selected people from a list of people who had previously been hospitalized, found that those selected had statistically significant shorter hospital stays because the measurement (who on that list had shorter or longer hospital stays) had not yet been made (the result was uncertain) and the data that could be collected after the fact (interviewing those patients to see if the records were accurate) is likewise uncertain. There is no inconsistency in PMR – no “backwards causation”. Psi uncertainty requires that there be no proof whatsoever of any ill patients suddenly healed, or of records being magically changed as a result of the prayer group’s actions – it is perfectly reasonable, within the uncertainty of the situation, to assert that PMR reality trudged on completely consistent with the “objective record”. What happened was that a specific uncertainty concerning the relative duration of hospital stays these patients experienced was reduced by a measurement whose outcome was modified by the focused intent of the prayer group. It only produces a “gee Whiz – how could this happen” along with assumptions of backward causality if one erroneously believes that PMR reality is an objective physical reality.

Intent can modify the present moment (PMR reality) within the grey areas of uncertain outcomes of specific measurements, without disturbing PMR’s consistency, as long as the measured result falls within the bounds of probable outcomes.

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Ted: Now looking at the concept of 'backwards' causality, we again come down to the collapse of a probability wave. In this case, we must be dealing with a past situation that has not been observed and thus already had the probability wave collapsed and the result 'fixed' as a reality.

Tom: .....we are dealing with a past situation where a specific piece of information content has never been observed in the PMR “objective” record, OR a specific piece of information content that at one time had been observed in the PMR objective record, but now that information has been permanently and irretrievably lost from the PMR “objective” record. Such lost information returns to the realm of probability – there is much uncertainty surrounding its existence. This is true even though every detail defining that specific content had been originally observed as a present choice sometime in the past and is now residing as data in The NPMR actualized history database. The information in the NPMR data base remains in NPMR – no records are lost in the NPMR database and its digital memory does not fade – everything actualized in that past present-moment remains recorded there. The uncertainty is in the PMR “objective” record. As time goes by and memories fade and records are destroyed, more uncertainty blossoms in PMR.

Bottom line: The uncertainty that can be manipulated by intent is not just potential existence/information that has never been measured in PMR, but also new uncertainties that are created as information drops out of the “objective” PMR record.

Ted: So we, individually or as a team of scientist/experimenters, can attempt to mentally, through prayer or meditation of some kind, attempt to modify some aspect of the past. Since this 'aspect of the past' has

not been observed and thus recorded and fixed in the past, it is in fact open to change of it's probability wave, the only way in which it really exists. Then if the observation is made, in the present, which fixes the probability wave from the past, then we can find that we have modified the result that this probability wave collapses to, at least to our perception.

Tom: I would change: "Since this 'aspect of the past' has not been observed and thus recorded and fixed in the past,..." to read: Since this 'aspect of the past' is not to be found in the PMR objective record, it is thus not a part of the existing historical record and thus not fixed in the past (instead of a fixed/recorded/known factual event, it is now an uncertain event or a probable event within the past.

Ted: This raises a question for a clarification to my mind. If this past aspect existed only as a probability wave in the past because it was not collapsed then by a conscious observation, is it not still now a probability wave in (and of) the present, although we are speaking of a probability wave that could have been collapsed then in the past if an observation had been made then? Thus we are speaking of a probability wave of the past, that simply continues as a probability wave into the future, now, and is it not then as much a probability wave of now as of, potentially, the past. A probability wave is a probability wave . . . is a probability wave, until it is collapsed by a conscious observation at some time, when and if ever.

Tom: It may have been a probability wave in the future that simply migrated to a probability wave in the PMR objective record, i.e., information that was available within PMR that could have been noticed/measured/recorded but that was never measured or the result of that measurement was never recorded. The list of patients sorted by length of hospital stay is a good example. The data existed, that is why a measurement could be made to validate the effect of the focused intent. However that result (a list of the patients with shorter than normal stays) was never measured (made a part of the PMR objective historical record), thus psi uncertainty could allow intent to modify the result of a random selection of patients without violating PMR consistency. Had that measurement been made (had a document existed that listed all the patients with shorter than normal stays) then the psi uncertainty principle would have denied an intent focused on random patients from having any effect on who left the hospital early since that information would have been a matter of factual record in PMR). The circumstances also could have been that such a measurement was made (there was a document produced that listed all the patients with shorter than normal stays) but that document was subsequently destroyed. The destruction of the document returned that information to the status of unknown (i.e., there was sufficient uncertainty to allow an application of focused intent upon random patients to determine (to some extent) who went home early since there was no PMR objective record to contradict that outcome.

Ted: I believe that you [Tom] have in fact said this in effect, that all of reality is in fact 'fuzzy' and open to change to the extent that it has not been 'consciously observed' and thus caused a probability wave to be collapsed into an observation and thus fixed as a reality. Anything not yet observed [in PMR and made a matter of record], past, present or future, is thus open to conscious manipulation of the probability wave that represents it's existence, within the limits of that probability wave, until a conscious observation is

made and the reality is thus fixed. Once observed, the reality becomes fixed. [Yes, but not necessarily forever]

Tom: Yes [with the brackets added], that is a correct summary.

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## 2 – Deriving PMR Physics

(Delivering a little TOE: deriving quantum mechanics and relativity from one overarching set of fundamental principles based upon just two assumptions)

MrGeeky: “So my question is this: Why does something which is supposed to reduce computational effort end up generating a system which is so difficult to compute?”

Tom: Simply because to make the system work (be a profitable VR trainer for consciousness) it is required – and that requirement is not all that difficult for the system to meet. That we in PMR find a probabilistic description of potential states of a complex system to be immensely challenging says much about our limitations but nothing at all about the capability of the larger consciousness system to handle the problem with ease.

MrGeeky: “Without having worked out the rule set for PMR, it's just not going to be possible to answer a question about details of physics. Working out the rule set for PMR is the same as saying that MBT explains physics. But you don't have the rule set so none of you have explained physics. My only issue with this is that Tom has said several times that MBT explains physics...”

Tom: One does not need to know everything to know anything. Working out the complete PMR rule-set (physics) is not required to discover something fundamental about that rule-set. If it was, physics as a science would be logically impossible. IF I said that “MBT explains physics” one must not take that statement out of context. The context was limited to deriving, from fundamental principles, the logic that requires particles to exist as probability distributions before being measured or experienced into the PMR reality frame (i.e., Collapsing the wave function within PMR).

MrGeeky: “Sorry to take the wind out of your balloon but it's not all that impressive at all. When physicists say that they can't explain the wave-function collapse, they actually mean that they have many potential explanations and haven't yet figured out which one is correct. What you and Tom have done is to create another interpretation of quantum mechanics, like the ones Tom showed in the London lecture (Part 3 at 5:13).”

Tom: To maintain the fun spirit of the mixed metaphor, let me put some air back in your sail or wind in your balloon :-). The many potential explanations you refer to are all about the mechanics of collapsing the wave function – how and why the wave function comes to collapse to the value that it does and what that means to PMR. None purport to say anything at all about why there should be a probability wave function in the first place, which is the question that MBT answers.

MrGeeky: "Here, Tom goes further than saying the MBT explains physics. It tells you why quantum mechanics has to be the way it is."

Tom: I don't know why you think that quote of mine "goes further than saying the MBT explains physics" – whatever that means -- but you are right, I do indeed say that MBT "tells you why quantum mechanics has to be the way it is." And I do so with very few fundamental assumptions, as Occam's razor requires. Given two fundamental assumptions (consciousness and evolution), logic, and reasoned argument leads to the conclusion that PMR is a virtual reality generated by a digital information system. That conclusion alone is sufficient to derive both quantum mechanics (why particles at the fundamental level must be probability distributions) AND relativity (why the speed of light must remain invariant (constant) even though the source of the light is in relative motion with the inertial frame where the measurement of the speed of light is being taken – this single fact is the source of relativity theory).

MBT delivers one elegant overarching concept that derives both quantum mechanics and relativity from first principles. It also derives the core of metaphysics (from ancient times to modern times) and provides a solid theoretical basis for modern mysteries of science like "backward causality" (see forum discussion), the placebo effect, synchronicity, precognitive dreams, etc., that are derived from those same first principles. While Schrödinger and Einstein simply assumed, respectively, that particles were probability distributions and that the speed of light was invariant because those assumptions produce right answers, MBT derives from first principles why both of their assumptions must be so. Lest you think my "first principles" are unsupported, It would appear that Edward Fredkin and the digital physics movement agree with me about PMR being a computed reality and that Brian Whitworth in his latest paper (accepted for publication in peer reviewed journal) agrees with me about logical conclusions of such a reality (advanced copy: <http://brianwhitworth.com/BW-VRT2.pdf> ).

Surely you agree with me that it is obvious to the most casual observer that what makes a theory valuable has nothing to do whatsoever with how well it supports current scientific beliefs. Indeed, given that current scientific beliefs have failed for the last 70 years to succeed in producing a little TOE (deriving quantum mechanics and relativity from a single overarching understanding), one might reason that thinking outside of that particular belief box (modern physics) might be a requirement to access the solution. Unfortunately, it is a fact that a theory's value is almost exclusively judged by how well it supports current scientific beliefs – a fact that hasn't changed since the time of Copernicus – nor is it likely to change anytime soon.

One more thing, I highly recommend using Wikipedia as an open public source of simple graphics to illustrate broad concepts to those with little background in those concepts – it excels at reducing information to a graphical level that is easily understood.

Tom C  
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Neil (MrGeeky): I don't see any reason for PMR to require quantum mechanics in order to be a profitable VR trainer

Tom: QM is a result, a logical consequence of a virtual reality consciousness trainer, not a fundamental enabler. Such a trainer requires the ability to assess probable consequences. In the MBT model of reality, the mechanics by which that happens – a probable future database progressing to actualized and unactualized history databases by the application of free will intent operating in the present moment – defines the process that leads to PMR time and causality. QM simply expresses how the VR works; it is not in any way responsible for making it work that way.

Neil (MrGeeky): It looks like book 1 chapter 31 covers relativity, book 2 chapter 31 covers how to derive PMR physics and book 2 chapter 37 covers quantum mechanics. Is that where this is covered?

Tom: MBT (the books) were written to share the significance that MBT (the theory) has to the everyday existence of the players engaged in this consciousness evolution VR trainer. You will be disappointed in MBT if you are looking for a dissertation on relativity and QM. You will find the fundamental concepts that lead to a derivation of both QM and relativity in MBT, but they will not be spelled out as such with a drum roll to attract attention. I dealt a little more explicitly with these issues in the just completed Toronto workshop (since some physicists were in attendance) and occasionally they come up for discussion in the forum. MBT is focused more as “news you can use” than “science breakthrough” because this reaches, and is more pertinent and valuable to more people. The Toronto workshop will be available on DVD in a few months. The next edition of the books will have a few paragraphs added to make the logical necessity of “c” (the speed of light) being invariant clearer – just as there are a few paragraphs scattered about now pointing to the logical necessity of particles as probability distributions. There is no one or two places where all the “science information” is discussed. For example, it is not until half way through Book 3 that the core concept of the future probable reality data base is examined.

The above accurately state the facts, however, to help you understand more fully why it is as it is, there is a bit of history that needs to be explained. Because my focus was on sharing the results of my research on the nature of the larger reality, I did not fully realize that I could logically derive QM and relativity theory from the same logical model that described consciousness until after the books were published. It was all there in MBT, just as obvious and clear as it could be (c was stated to be a constant in book 1 and existence was stated to be constructed as probability distributions before being brought into PMR experience by free will intent expressed in the present moment in books 2 and 3). However, not until Ted wrote his treatise on the VRRE did it occur to me that I had actually already derived QM. A year later, it came to me that the one fact that launched relativity was c being constant -- a fact that I had already derived years earlier from the nature of virtual reality – Bingo! the same logical model that derived consciousness, QM, and the nature of reality also clearly derived relativity as well. All along, I was well aware that an accurate description of the larger reality would necessarily lead to a more fundamental understanding of PMR but I failed to notice that the logical consequences of my model fully derived QM and relativity and laid them at my feet without me even noticing until Ted inadvertently gave me a nudge (I use the word “derived” as described in my last post). In the second printing, I added a short paragraph pointing out the QM derivation and in the next printing (sometime in the future) I will add another paragraph that describes (in a little more detail than is already there) why c must be invariant within my VR model.

Neil: It's not how well it supports current scientific beliefs but rather how well it supports current scientific results. The easiest path to that is to base your work on current scientific belief. To do otherwise requires a huge amount of work. More than one person can do, in my opinion.

Tom: You are absolutely right on all four counts. Some comments:

- 1) It is often very difficult for scientists to differentiate scientific results from scientific beliefs. Beliefs, whether religious or scientific, appear to be beyond question.
- 2) A big TOE must not only support objective scientific results but also explain subjective experience, point and purpose, meaning and significance, from a bigger perspective that resonates true with individual experience and the gathered wisdom from the lessons of life.
- 3) Indeed it is the easy and only safe career path to rummage about in the corners of the status quo of scientific belief – anything else is a career killer within academia. But also note that breakthrough belongs to the young who have not yet been captured by the status quo and those on the fringe (e.g., Schrodinger, who proposed probability waves, was a graduate student and Einstein wasn't much older). The center provides little other than infrastructure and resistance (thus stability) to the process of breakthrough.
- 4) No doubt, to change cultural/scientific beliefs is very difficult and takes a very long time. Darwin published his theory in 1850 and 150 years later it is still a very controversial idea. True believers are a tough group to change no matter what the particular beliefs are that they cling to.
- 5) Yes, More than one person can do. However, every year there are more scientists realizing that an assumption of virtual reality explains scientific results better than an assumption of objective reality. Brian Whitworth's two papers demonstrating this fact (the link to the latest referenced above) is just the most recent (look at the length of his bibliography). There are many people pulling on this oar and the numbers are steadily growing because facts are more convincing than dogma – especially to the young.

Neil: I think the best approach is to publish in a reputable scientific journal. That way, you can raise the interest of the scientific community and get more people to help you. I also think you'll be more successful at reaching the populace. Once MBT becomes established science it'll be all over the news.

Tom: I am not an academic physicist – I am an applied physicist generating what is called “physics models” of complex systems in order to assess potential risk to NASA missions and to the lives of astronauts. I am perfectly happy letting Fredkin, Whitworth, and many others bang their heads against that particular wall. They are making progress from inside the physics and applied math academic establishment – much more effectively than I could do as an outsider. My Big TOE theory is much more general and describes a much bigger picture than they can describe within the confines of their academic culture. My Big TOE is immediately useful to thousands of people – life changing in very positive ways to many. It is my goal to be useful to others – I have no interest in proving anything – I prefer to let the facts of experience speak for themselves.

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Vzam: Andrew Thomas in replies to questions on his site ("Are We Living in the Matrix") [http://www.ipod.org.uk/reality/reality\\_big\\_brother.asp](http://www.ipod.org.uk/reality/reality_big_brother.asp) says that in a simulated universe, the speed of light does not need to be constant because the computer can cause the brain and local clocks to slow down to allow rendering. The experiencer wouldn't realise that the slow down has occurred.

Does this make sense, Tom?

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Tom: There is clock time in the computer room where the computer resides that hosts the VR; and there is VR time within the VR --the VR advancing one time step every time the data is refreshed with another iteration of the time loop. To the characters in the VR, it makes no difference how much computer room clock time (CRCt) goes by for each Increment of VR time (VRt). One can have a million VRt time increments go by in one second of CRCt, or one can have a million CRCt seconds go by just to calculate one increment of VRt in the simulation. The characters in the VR wouldn't notice any difference -- they simply advance one time step each cycle and have no sense of the passage of CRCt. Each cycle through the time loop would seem to be identical to every other. For the VR inhabitants, time does not exist between VRt increments. Thus, though VRt increments (cycles) may be non uniform in duration from the perspective of CRCt, they appear as constant time increments in units of "number of cycles" from the perspective of VRt. Each pass through the time loop, or data refresh time, defines one unit of VRt called a quantum of VRt, which, from the perspective of the VR, is a constant increment of time.

To make it simpler, let's say this VR is a two dimensional world on a monitor screen (like most computer games). In this VR, the fastest that a one pixel dot can move across the screen with continuous (no hopping about is allowed) motion is 1 pixel every VRt increment. That is true no matter how much or how little CRCt goes by between each VRt increment. Thus in VR land, the maximum speed that information can travel is 1 pixel per VRt increment and that is always a constant in VR land however erratic the VRt increments seem to be from the perspective of CRCt. (This is perfectly analogous to how the speed of light must move at one quanta of PMR volume per PMR DELTA-t in a uniform, isotropic space-time so that we have an apparently continuous, functionally consistent space to have our PMR experience in.)

Now, imagine that the people in the computer room have certain tasks to perform to get the VR ready to implement each increment of VRt. They would need to have shorter time increments creating the passage of their CRCt (a smaller quantum of computer room time) than the VRt increment (VR quantum of time) so that they would have available CRCt cycles to get things done to get ready for the next VRt increment.

Do you now see why the speed of light, from a perspective within PMR, must be a constant? It matters not how time varies in CRCt or how the size of consecutive VRt increments may vary from the perspective of CRCt . Also the quanta of volume in the VR must be a constant or space would be inconsistent -- i.e., non - homogeneous and non-isotropic -- a violation of our rule set.

Then  $c$  = the speed of light = the cubed root of the constant PMR VR volume quantum divided by the PMR VR constant time quantum (each time the data gets refreshed (recalculated) counts as exactly one unit or quanta of VR time.  $C$  is a constant from the perspective of PMR because it is computed by dividing two quantities that are also constants from the perspective of PMR.  $C$  is a constant equal to the max information transfer rate of one volume quanta per calculation cycle.

Is this clear now?

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Vzam: Thank you for the full explanation, Tom. It's the perspective thing that confused me - as you show, from within PMR  $c$  seems constant. Andrew Thomas was talking from the CRCt perspective.

He suggested "jumping around" rendering on the screen might be allowed, and I thought he meant that we wouldn't necessarily notice the jumping around (cheating on the normal rules?) if the jumping could be

veiled from us -the clocks could perhaps all be moved on and we'd never know we lost an hour. Not sure what the point would be though, except to bypass something unwanted. (This also brings to mind UFO alien abduction stories where time is lost; or people claiming that somehow they avoided an inevitable accident and found themselves still alive on the other side of the road or further down the highway a few moments later.)

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Tom: The perception of space and time (the generation of our shared multiplayer PMR reality) provided by our rule-set is of a continuous, homogeneous, uniform isotropic time and space. This is required to produce consistency of experience so that action, interaction, and feedback are all tightly coupled and make rational sense within an apparent objective causality. To optimize learning potential requires consistency. Consistency allows choices and their results to be causally connected. Exceptions (e.g., jumping around) are permitted but they are individual and purposeful (not random) as allowed by the psi uncertainty principle. Exceptions do not represent random system hiccups -- they are specific to one or a small group IUOCs -- and have little to no affect on the whole (on IUOCs in general or on the shared perception of a consistent causality based reality) as per the psi uncertainty principle.

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Claudio: It appears to be that TBC chose a certain value of  $c$  for our PMR VR. By having  $c$  in our PMR the speed of light value we know can the speed of the VR be changed by just lowering the PMR delta  $t$  ( $VRt$ )? If this is done, then is this a way to speed up evolution for PMR players?

If  $VRt$  is not manipulated, are there more efficient PMRs that have a higher value of  $c$ , so that it can speed up the evolution of the players?

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Tom: Yes, the value of  $c$  was specifically chosen by TBC. When setting up a virtual reality, the very first, most fundamental thing that needs to be decided is what is the resolution of the rendering going to be and how often must the data describing the VR be refreshed. The first determines the amount of data that is required to generate the VR (the memory requirement), the second, how often that data must be updated (the throughput or computer speed requirement). The resolution is determined by specifying the size of a PMR quantum of volume [a 3D version of defining the number of pixels per square inch on a display screen (2D), or the number of dots per inch on a printer (1D)]. The refresh rate is determined by specifying the size of a PMR quantum of time (like defining the number of seconds consumed per computational cycle -- one over the CPU operational frequency -- required to process a particular problem within a given amount of time). As stated above, the size of a quantum of PMR volume and a quantum of PMR time must both be constant in order to produce a consistent reality frame suitable for optimal consciousness evolution. As stated earlier in words,  $c = [(volume\ quantum)^{1/3}/time\ quantum]$ .

Thus  $c$ , the speed of light in PMR, is a constant that is specified in order to constrain the demands placed upon the virtual reality rendering engine (VRRE) to something that is easily supportable by the available computational resources within the larger consciousness system.

Changing the size of a  $VRt$  increment (a larger or smaller amount of  $CRCt$ ) matters only to those in the computer room. The people in the VR measure time by the number of cycles that have passed -- each completed cycle is one unit of their time and every unit appears to be the exact same -- one cycle equal one unit, or one increment, of  $VRt$  -- define that unit as a second or a nano-nano second or whatever.

Time in the VR is produced by counting cycles. The length of those cycles as measured in the computer room has nothing to do with time in the VR. The amount of CRCt that passes during one increment of VRt is important only to those in the computer room (how much CRCt do they need to accomplish what is required of them between VR cycles).

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Claudio: Let me see if I understood then. No matter what increments they use or constants they use it won't affect the speed of evolution of a VR (average entropy reduction)?

Tom: That's correct. The speed of evolution, from the perspective of the PMR IUOCs, is independent of what happens in the computer room. It is entirely dependent on the quality of their intent driven choices.

Claudio: Do the ones in the computer room have any technological trick to use to speed up the evolution besides being creative in the development of the rule-sets?

Tom: Yes, they interface with each IUOC that is ready to learn by: 1) generating a custom lesson plan, 2) providing experience in multiple reality frames that offers optimal learning opportunity (e.g., dreaming), 3) selectively demonstrating the larger reality in order to open eyes and minds (often something paranormal), 4) giving nudges through intuition, and 5) by administering tests that help them tweak lesson plans to keep them optimized.

Claudio: Also. Can I send my resume to work in that computer room? I have programming experience but I am willing to start by just sweeping the floors and taking the garbage out :)

They already have your resume. You have been accepted and are presently enrolled in their training course. See answer two above. :-)

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### **3 – What should I do?**

Maximizing your growth rate - the evolution of your consciousness -- requires three mutually interdependent things to work together -- much like the mutual interdependence of wisdom, experience, and knowledge as discussed above. The first is awareness. Awareness of yourself, of your intent, of your consciousness, of your fear, ego, and beliefs, of your potential choices, of what is important and what is not, of how you interact with your environment. Awareness of your environment including other people, being present in the moment, being aware of what others are thinking and feeling, as well as of their needs and how you might affect them, being aware of a larger reality and your place and function in it, of where you are going and how you are going to get there. Awareness of the dynamics of relationship from the perspective of the big picture. That is a lot of awareness to develop. The second is to let go of fear and ego (wants needs, desires, beliefs, and expectations) -- from this, competency, focus, trust, and effectiveness develops to allow the being to optimize the productivity of its interactions and understand the purpose of its existence. The third is to embrace change and uncertainty -- make a constant and consistent effort to change, to grow up, to internalize, absorb, integrate, and organize the results of one and two above into a new way of being, a new perspective. a new reality in which a new you exists. Your reality evolves and expands as you evolve and expand. This last one requires a long term view, a desire to improve yourself more than your situation, gumption, stick-to-itiveness, drive, energy, and focus over a

lifetime.

That's all you have to do -- a very short list with just three items on it ☺. Get all that done and you will maximize the value of your daily experience and be off to a good start.

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#### **4 – Where is our memory stored – in the virtual brain or in consciousness.?**

I think the virtual brain and body primarily serves the purpose to specify the constraints of the PMR rule-set and PMR evolution (a reflection of the rule-set) on the PMR experience of consciousness. The virtual brain's functionality, or lack thereof, constrains the generation and interpretation of the data stream that defines our reality to be in consonance with what the PMR evolved virtual brain can support -- i.e., be in consonance with the rule-set and its historical effects. It seems probable that the information that you normally think the brain has access to (your memory) lies in the larger consciousness system in a folder with your name on it. This folder is the FAWU (Free Will Awareness Unit). There is only a virtual brain -- since there is no physical brain, all information and memory is simply within Consciousness. The physical body and brain represents the limitations of our local personal PMR experience. The brain is not a source of information, only a constraint upon the source of information.

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#### **5 – What is the relationship between thought, intent and awareness?**

Tom: Simplistically: Intent is an expression of your quality; an active expression of the inner core of your being projected to meet the interactive demands your reality places on you. The quality of your intent, as you apply it toward the formation of attitude, motivation, and action in response to the world around you, reflects the degree to which you have evolved.

Thought is the means by which you bring something into your intellect.

Awareness is the degree to which you understand the nature, content, and purpose of reality.

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#### **6 – The evolution of God?**

Bernard: "... how there can be change without time. And yet if some kind of time preexists, isn't that more fundamental than a God who emerges as a consequence of differentiable states?"

Some thoughts:

Yes it is. No problem there... Our God evolves out of the primal digital sea much as the organizational pattern and limitations that represents our bodies evolved out of this particular PMR virtual reality (our local primal digital sea). Our reality is a consciousness-evolution process fractal and in such a fractal processes one sees repetition of the fundamental process within the medium of consciousness. We in turn, to extend the pattern further, create digital computers and then eventually arrive at the first tentative stages of creating virtual realities. Perhaps one day in the not too distant future our computers will become conscious ... and a long time after that the characters (each equivalent to a consciousness computer themselves) in our virtual reality simulations will become conscious. Then, the God of that system might be running within a virtual partition within a large cloud of netted Hp supercomputers. Projecting ones vision downstream is intuitively easier that projecting it upstream where it quickly reaches the barrier of "beyond our knowing". The crux of the concept is to switch from the concept of "God" to the more local concept of "our God" -- i.e., our local larger consciousness system. Remember the AUMosaurus inhabiting the primordial mental swamps in book 2? Inevitably, if one remains detached, Knowledge goes to intelligent speculation goes to humor.

Why cannot the first "larger consciousness system"(which may or may not be our larger consciousness system) have evolved (through trial and error matched with fortuitous circumstances) a irregular time which would eventually, after sufficient awareness evolved, introduce the concept of intentional change. Evolution has a way of eventually delivering what is necessary to move toward states of greater organization leading to greater functionality. This nascent just-evolving crude time may be haphazard and occasional -- a new technology evolving within a digital consciousness medium to increase the way things can be ordered, i.e. a new way to lower entropy). Every "proto-cycle" would probably have a different DELTA-t. That crude time allows change but eventually a better technology is evolved that facilitates even more ordering -- a uniform regular beat that you can both literally and figuratively count on. This regular oscillation is more like what we call time -- and would constitute the invention of time from our perspective. Such a regular beat leading to constant Delta-t would now permit the evolution of useful virtual realities like ours -- "places" where individuated units of consciousness (cells of the larger consciousness system) can more profitably interact and exchange information (what else can an information sub-systems do?) in such a way (with the proper rule-set) to speed up and enhance evolution of the whole (build a system entropy reduction/evolution engine). The irregular crude time (might be called proto-time) that evolved initially is as fundamental as information and consciousness itself. It evolved along with the concept of communication -- moving information from one part to another -- a necessary step to crude self awareness. The dim but growing awareness that eventually evolved regular time and then sentience, followed by purposeful intent all preceded "God" which was a result (rather than the creator) of this evolution as are we.

Tom

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## 7 – Does Prayer work or is it a waste of time?

Bernard: does prayer work? Can praying to God for things we want or need be effective perhaps via its influence on our NPMR consciousness? Or is prayer a delusion and waste of time?

What is your view?

Prayer can be effective, though often it isn't. The same could be said of meditation. It depends on the quality and of the consciousness and on the clarity and strength (coherence) of the intent doing the praying. With a poor and noisy focus of intent (often a fear or ego driven intent) prayer is little more than a wish and generally impotent as far as manifesting results. However, prayer with a clear and strong well focused intent, (a love based, fearless, and egoless driven intent with a practiced, low noise, clear focus) is as powerful and effective as any such intent -- that it is a prayer rather than a meditation, or some other process is irrelevant. Also having some idea of what you are doing so that your focused intent is optimized in bringing about an effect is also a factor.

Much prayer is fear, ego, and emotion based by individuals who want or need something for themselves, however, there are religious people who despite the dogmatic, ritualistic, and fear based nature of everyday religion are also truly loving, spiritual people. This minority of religious individuals may produce powerful intent based effects by focusing their intent using the tool call prayer rather than the tool called meditation, or some other such intent focusing tool, protocol or ritual. It is the quality and power of the intent that counts, not the tool used to focus it. People with a good quality of consciousness, whether religious or not, generally know intuitively how to focus their intent effectively.

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## 8 – How do you define “intent”?

A group of people trying to translate MBT into Spanish get snagged on how to translate the word “intent” and ask Tom for help in defining the term:

Tom: This is a tough one. it is difficult enough for me to define intent in English -- and i know nothing of meanings and their nuances and in Spanish.

One word must be defined in terms of other words but at the same time be different than any of the words used to define it. Indeed, according to English meanings, "intent" can have some of the characteristics of "purpose", "determination", "desire", "want". I think "Command" is too strong and demanding to fit. Intent can be closely associated with "will" as in the expression of “free will”.

However, in English:

Purpose carries the connotation of a goal, an objective, a specific result. Intent may have these characteristics but does not have to. Intent may have no specific purpose it may be just the active expression of a being.

Likewise, intent can be determined but does not have to be.

Intent is not a command, it is not demanding, though it can arrange reality to its will.

Will (as in: “will power”, or the expression of “free will”) is often the best synonym for intent but “will” has other connotations that express “desire” (will to live) or “want” (strong willed) and intent is not simply desire or want.

Intent, as used in MBT, is composed of several interrelated concepts. With intent is how one interfaces, communicates, and interacts with other individuals or with the consciousness system. It is the vehicle or mechanism for expression of a consciousness at the being level; thus it is the most fundamental expression of the ability, capacity and quality of an individual consciousness in its interaction with others. Intent does express an individual’s attitude, will, and motivation (relative to interaction with others) at the being level.

You, at the dynamic interactive being level, are your intent. Your intent is the dynamic expression of you (your consciousness) that connects and interacts with whatever is beyond or outside of you (the larger consciousness system). In other words, your intent is the essence of you that interacts with all that is not you.

It is your intent that “moves data” in the consciousness system – i.e., that transmits, interacts, exchanges, and modifies information within the larger information system.

Intent is not a simple concept in MBT. It is the active personal projection of an individuated unit of consciousness at the being level (as opposed to the intellectual level) into the information field of existence. (“Focused mental energy” is one metaphor for that idea). I do not think you will find a single word in any language that captures all that intent is. As Ted said, that is why MBT is 900 pages rather than 200 pages – English, like every current PMR language, was developed to express things related to physical existence and is not very good at precisely and clearly expressing concepts of consciousness and existence in terms of a nonphysical interactive information fields. So I used lots and lots of words coming together from different angles to get my meaning across. Intent, as it is used in MBT, is difficult to express succinctly in any language but hopefully most readers get a good sense of it, even if they cannot clearly define it (because their language does not support a simple clear definition).

The Spanish team needs to back up to a higher level of consideration (the answer is probably not in finding the perfect Spanish synonym because “intent” was not the perfect English word to begin with – only the best of what I had to pick from) and there is no one simple definition that will do.

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## **9 – Is there a misinterpretation going on of the Buddha’s words?**

Cole, the easy top level answer is : “Yes, of course the Buddha’s words have been misrepresented”.

Everyone can do no more than offer their own personal interpretation based on their own personal fear, ego, belief, and understanding. What is the probability that all who have interpreted the Buddha’s words have had no fear, ego or beliefs? That all who have interpreted the Buddha’s words understood them as the Buddha understood them – i.e., had the Buddha’s experience – i.e., was in every way that is significant identical and equivalent to the Buddha? As time goes on, interpretations stray from the source – monks and holy men add their own limitations to The Word. That is why your truth can only be based on your experience and understanding – to base it on another’s experience and understanding (even the Buddha’s) is to believe – an act that cuts you off from actual truth that can do you any good. Don’t look to anyone else to tell you the answer – spiritual growth is, and must be, a personal journey. If you try to ride on another’s shoulders (even if that other is the Buddha, much less the limited understanding of his disciples), you will go nowhere – this is a journey everyone must make for themselves. Even comparing yourself to another to see if you are doing it right is of little value. Growing up must be an inside job or it is only virtual growth as measured by the ego and intellect.

Tom

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## 10 – Why is interacting with PMR from NPMR so strange as compared with interacting with PMR from PMR?

**Helge’s Question:** If we look say into the clear night and see the Milky Way, and of course being prevented from travelling there in physical form. Still our soul can go there in an instant. What is the difference, what does the soul experiences, relative to the five senses and what the conscious mind constructs based upon that perception and memories.

**Tom’s answer:** Remember, reality is information. When we get information about the multiplayer PMR reality game we interpret it in the way we have learned since we were first infants born into this lifetime of experiencing PMR reality. We interpret it in term of our body (5 senses and central nervous system (CNS)) because our body represents the constraints of the rule-set within this PMR frame. Reality is nothing but data. When we as humans in PMR travel with our consciousness (soul) to a distant star system within our galaxy what we are doing is accessing data about that star system from the PMR past data base which is very current since its last entry is only one DELTA-t older than the present. Recall that our virtual reality (like most all large complex virtual realities) is probabilistic and statistical rather than objective (listen to the Hawaii seminar on YouTube) and that detail is computed according to probability based on the rule-set, and brought into this PMR reality frame when a measurement is made by some entity operating (being aware) within PMR. When you are OOBIE you are not operating in PMR, you are operating in NPMR. The data you get about that star system is whatever is probable at whatever level of detail that has been produced by the system thus far according to the rule-set and the needs for detailed data by direct observation (measurement) from within the PMR system. If no PMR aware entities are making measurements there (live there), or if the only measurements are from our telescopes on Earth, then not much detail would have been computed and your data would be very top level and preliminary. That is, that part of the “objective” map of our universe hasn’t been computed yet and will not be computed until measurements by PMR aware beings are demanding the data (making measurements) --

why waste cycles in a virtual reality computer game if the calculations are not needed for anything relative to game play?

First, you only get data from the database that you ask for. If your query is not specific, what you get back is not specific. It is sometimes difficult to ask very specific questions unless you understand the possibilities (something about the potential answers). If you are not careful with your query you might end up in the unactualized data base instead of on our PMR history thread. Often the query process is an iterative one that eventually digs down to what you want to know through a series of more specific queries. This takes practiced skill. Secondly, you must interpret the data you do get (e.g., what is available in the database on our history thread or some part thereof depending on the completeness of the query). Your interpretation is limited by your fear, ignorance, ego, knowledge of the possibilities, understanding, expectations, and beliefs. If you are not very knowledgeable about your subject you may not be able to interpret the data correctly. These reasons and explanations should give you a good idea why what you get about some star system is not the same as the data you get when inspecting something here on Earth.

Reality is not objective though it approximates being objective when the conditions for historical continuity and abiding by the rule-set contain little uncertainty. When zipping about places largely unknown, the uncertainty is great, thus the “physical” reality in these places is ill defined and mostly still probabilistic, i.e., non objective, undecided, not part of the objective PMR yet.

Expecting what you “see” in NPMR to be just like seeing things in PMR is a big mistake based on an incorrect understanding of the nature of reality. Probability (what is actually in the database), querying skills (how effectively you are at accessing that data, and uninformed interpretation (not being to understand what the data means relative to your personal experience and fear and belief and expectations.) all make a big difference in what you can come away with. The nature of perception is very different in NPMR than it is in PMR, though sometimes, depending on the situation, the results can be very similar.

**Claudio’s question is similar:** “I think that there is a tree (represented as a subset of information), and there are woods. I also think there is a "potential" sound, but yes, agree you need a listener. Well, what about an NPMR traveler that happens to go to the historical database to hear that?”

**Tom’s answer:** There is nothing in the database because nothings happens in PMR until someone in PMR makes a measurement. With no measurement, the event remains unactualized in PMR and exists in probability only. Things come into PMR reality based on a measurement by those in PMR reality. An observer in NPMR does not cause the PMR wave function to collapse to a physical particle or happening within PMR. Only an observer in PMR can do that. What is in the PMR database was actualized by a PMR happening or event. The PMR virtual reality is set up to be consistent for those experiencing, measuring, observing within PMR. Historical consistency is required only among the data that resides within PMR. If certain constraining data disappear from PMR, then new future possibilities may open up due to the disappearance of constraints. That the original data is part of the database in NPMR means nothing. Reality is not objective – the PMR VR must be self-consistent in terms of history and the rule-set. VRs elsewhere (which are considered nonphysical by those in PMR) must also be self-consistent. Each VR is its own subset – there is no consistency requirements between VRs. Like there is no required

consistency between World of WarCraft and EverQuest – even if both were manufactured by the same company. That doesn't logically imply that there can be no consistency – consistency is allowed but not required. Again – reality is not objective. Our belief that reality is objective (habit of thinking) causes us to make assumptions that a probabilistic reality does not support.

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## 11 – If there were just some hard scientific proof of OBE, ....

OBE is a variation of both remote viewing and lucid dreams and has already been "proven" over and over again according to strict scientific protocols -- more proof is unnecessary and will make no difference whatsoever. Just two of many examples: read "Limitless Mind" and "Miracles of Mind" by physicist Russell Targ. Or read Dean Radin's books.

Along as it is not your experience, you can do no more than either believe it or not believe it -- neither of which is of any value. Consciousness is subjective and personal, thus proof must be individual. Don't look for proof outside of you – physical reality is probabilistic and subjective – Reality is not objective though it approximates being objective under certain conditions. If you simply want something you can believe in, you are wasting your time. Belief is not useful. "Proof" that is somebody else's experience is not useful to you and will prove nothing at all to anyone except those who experienced the paranormal event. Any disbeliever who has no personal experience will be able to make up some sort of justification to maintain his disbelief -- so it is with all "true believers". Disbelief is just another belief.

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## 12 – What about drugs – can't they be useful?

**Question:** You oppose psychedelic drugs for growth. While I don't use them myself, I would see some value in learning the consciousness of the individual plants. That seems to be the approach of Pinchbeck, Terence Mc Kenna and others. Of course, any drug use requires responsibility to approach from a learning aspect rather than to get away from reality. I would see this responsible approach to some drugs as another tool similar to Hemi-Sync or any other as a way to contact other sentient consciousness as a good thing. Isn't there value in that? Can't we learn more about them as well as love them?

**Tom:** In theory I do not disagree with what you say but one must be aware that drugs and Hemi-synch create experience, not personal growth. You cannot become wise or lower the entropy of your consciousness by taking drugs or listening to hemi-synch. Change (growth toward becoming love) must occur at the being level and only follows intent, not experience. Both drugs and Hemi-synch can be specific tools – like training wheels – however, both come with limitations that can retard one's progress as well as help one's progress. First, you will

never be more than a marginal beginner of a bike rider if you don't take off the training wheels. Same with exploring consciousness with the aid of drugs and hemi-synch. Secondly, as a practical matter within our culture, the conditions of usefulness you imply (which I will generalize here slightly): [that any useful drug use requires responsibility to approach that use from a learning aspect rather than to just have an experience] is extremely problematical individually and more likely impossible in groups. Because of the nature of our culture, to make such a statement as you have made (in your question above) in a widely spread public forum would be irresponsible. It is likely that such a public statement connecting spiritual growth with drug use would create much more harm than good since those able to use such tools wisely (and drugs are a much harder tool to use wisely than hemi-synch because of their much deeper downside and much shorter time before they should be discontinued) are probably an infinitesimal number relative to those who would end up using it unwisely. The overall effect would very likely be an increase in the entropy of the system -- counterproductive. Many would find the justification of "spiritual growth" just the reason (excuse) they needed to experiment with the myth of drug short-cuts. Like hemi-synch, using drug tools past the point where one should stop using them, actually makes personal growth and consciousness evolution more difficult than it was initially (before they started using the training wheels) – now they have much to unlearn before they can begin to go forward. With drugs, as opposed to hemi-synch, that pit one has to crawl out of with overuse gets deeper quickly. Such "aids" if not used wisely, trap the user into being a marginally competent beginner for a while before degeneration and disillusionment (lack of continuing progress) sets in. In a world where most individuals never climb on a bike, those who become marginal beginners, spinning about on their nifty training wheels, may seem like they are great successes – however, these apparent "successes" will never know the extent of their severe limitations or the damage they have done to their growth potential.

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