

Some definitions to improve communication within MBT discussions

Because of the inherent interconnectivity among the definitions in this list, many of these definitions contain words and concepts that are defined and discussed elsewhere in the list. Thus, one must read the entire list once to gain the background one should have before reading it for the first time. These definitions are aimed at a target audience that wants to get a firmer grip on some of the MBT specific terminology and basic concepts before digging in deeper.

[MacKay](#): “**information is a distinction that makes a difference**”. [The Philosophy of Information. Luciano Floridi. Chapter 4. Oxford University Press, USA (March 8, 2011) ASIN: 0199232385]

1. **Information** is a distinction that makes a difference **to someone**.

Three essential parts: A) A distinction. B) That makes a difference. C) To someone.

A. Information is dependent on the existence of data:

“**A distinction**” -- anything to which meaning value, or significance can be attached (such as a fact, thing, stimuli, arrangement, structure, pattern, change, symbol, process, relationship, or constraint) is generally called the “**data**”

B. Information is dependent on the existence of content:

“**That makes a difference**” requires information to have value, meaning or significance that is called the “**content**”

C. Information is dependent on the existence of consciousness:

(Later we will see that little c consciousness is a product of big C Consciousness)

“**To someone**” requires a **conscious being** (called a “receiver” or “user”) who, perceives **and** interprets the distinction (data) in order appreciate or understand (use or absorb) the potential content (usually in terms of awareness or knowledge) because that content could make a difference (may have value, meaning or significance) to that being.

Our definition (“Information is a distinction that makes a difference to someone”) can now be reworded:

Information: A thing, stimuli, arrangement, change, or relationship (data) that produces value, meaning or significance(content) to a Conscious being who, perceives and interprets the data in order to appreciate, use, or understand its potential content.

The simplest and most useful form of data is the **bit**. The bit is the smallest unit of data in a data processor (computer). All other forms of data can be represented in terms of bits.

Digital computing is computing based on discrete bits. High resolution general computing must be digital rather than analog. Virtual reality must be a digital simulation created within a digital data processing system which is generally known as a “digital information system” because it is used by Conscious beings to help them create and propagate more-useful information (within their minds) from less-useful data (within their computers).

Communication: Someone, called a “sender”, may create a distinction (data) with intent to convey a specific difference (content) to a receiver. This data and intended content, representing the **information** the sender **intends** to send, may be based upon the sender’s subjective interpretation of **his** limited, unique experience and knowledge base (source of his content) and his ability to encode that content into sendable data. His content (the content of his Consciousness) cannot be shared directly – it can only be described and communicated with data. **The information sending process** begins with a conscious sender having information he intends to send to a receiver. The sender then encoded that information into data and transmits that data directly or indirectly to the potential receiver who may be himself or another.

Someone called a “receiver” decodes and interprets the data contained within the sender’s message based upon **her** ability to decode and interpret his data in terms of her unique personal experience and knowledge base (the content of her individuated Consciousness). This interpretation represents the **information** that the receiver receives. The information intended to be sent may not be the same as the information received. **The information receiving process** begins with a conscious receiver receiving data from herself or another. The conscious receiver then decodes that data into information.

A description of straightforward, factual, or objective information can be encoded into data quite precisely and with very little uncertainty as to how it will be decoded and interpreted by a receiver who shares a common education, language, and culture with the sender. Straightforward, factual, or objective information may appear to be functionally similar to the data that encodes it. Consequently, it is common as well as practical for the words “data” and “information” to be used interchangeably by people in science, engineering, data processing, etc., who primarily work within fact based systems that deal largely with “objective” information or information that contains little uncertainty.

On the other hand, subjective, complex, or poorly defined or understood information content may be difficult for the sender to code an accurate description (translate his information into data suitable for transmission) and the receiver to decode and interpret that data without a great deal of uncertainty and error existing between the initial generation and the subsequent interpretation of the informational content. Inaccuracy in the sender’s data (message) is greatly compounded by the subsequent error in the decoding and interpreting process (converting received data back into information) if the sender and receiver do not

share a similar interpretation of their shared reality. Mistaking the information received for the information intended is the cause of much misunderstanding.

Computers, and all information technology only process data, (not information), but it is still reasonable to speak of data possessing equipment forming information systems because the end point of all data processing is to enable **Consciousness** to develop information – i.e., to process the data into information that potentially holds value, meaning, and significance (content) for itself. That is what Consciousness does – it creates uniquely useful content out of data and then may uniquely describes that content in terms of data for transmission to another Consciousness or to intermediary data processing equipment. The processing of data into information and the processing of information back into data by a Consciousness is uniquely dependent upon the personal quality, knowledge, and experience of each Consciousness. A Consciousness increases or decreases its entropy according to the quality of the information it creates [does the information move the Consciousness toward love based intents and choices (high quality) or toward fear-based intents and choices (low quality)]. Moving toward love based intents facilitates positive evolution while Moving toward fear based intents facilitates de-evolution of the Consciousness

Data can be transmitted or received through all the senses and through the use of any mutually recognized symbols, metaphors, gestures, definitions, syntax, and usage that a Conscious being might assign to data by means of shared conventions used in their representation.

Only data can be transmitted. Information content is always dependent upon, and unique to, and contained within the Consciousness that is interpreting the data. Information can **only** exist within a Consciousness -- while data may exist within any form of memory – e.g., a computer memory, book, pattern, relationship, process, or within the memory of a Consciousness.

For example, a book represents data (ink mark symbols on paper media). That physical data is turned into non-physical information as it is read by a conscious being -- as the meaning, value and significance (content) to the reader is assessed and absorbed (processed into information) by Consciousness. That Consciousness cannot directly share this information (its total reading experience) but must resort to describing that subjective experience in terms of coded data (speaking or writing words, drawing a picture, etc). **All** experience is subjective. However some (usually minor) experience is largely objective while almost all personally significant experience is largely subjective. More objective information is associated with less uncertainty in both the information sending and information receiving process. Likewise, more subjective information is associated with more uncertainty in both the sending and receiving process.

A discrepancy existing between the information that the sender sends and the information that the receiver receives is more common than not. While **all** information is subjective, **all**

data is objective. Any sender and receiver, with a clear (error free) transmission process between them, will agree that the data sent is the same as the data received (an objective assessment) but they will, to some extent, disagree on the meaning, value, and significance of the information conveyed by that data (a subjective assessment).

An **information** exchange (conversation) occurs when a conscious sender and conscious receiver iteratively swap roles. Communicating information requires that at least one of the two (sender/receiver) must be conscious. Both must have the capability to receive data, process data, and send data. Two non-conscious computers may iteratively exchange and process data but until a conscious entity accesses the result, no information is generated. Data exchange is not the same as information exchange. Data can be directly exchanged while information cannot. Data may be sent to or received from a computer that processes data.

Unlike data, both information and Consciousness are personal, have no physical volume, mass, or spatial location or extent in this universe. Thus information, like Consciousness, is non-physical and cannot be **directly** represented in “physical” form. However, an imprecise interpretation of the sender’s unique information can be imprecisely described with objective “physical” data (e.g., language) and this data can be represented in “physical” form for storage or transmittal. From our perspective, data is a part of, and belongs to, the VR (what we call the objective physical universe) while information is a part of, and belongs to, subjective consciousness (the Larger Consciousness System)

Given that our universe is commonly defined to be “**physical**”, then anything that exists outside of our universe is defined (from our perspective) to be **non-physical**. In fact, physical and non-physical do not exist fundamentally – the distinction exists only within the point of view (perspective) of an observer. From whatever reality frame an observer is receiving a data stream (experiencing), that frame **appears** physical. No reality frame is more or less physical or non-physical than any another – there is no “fundamental” virtual (or physical) reality frame.

2. **Awareness** is the knowledge and perception of both self and other than self. Awareness is a sense of, an appreciation and understanding of, one’s own existence and of what exists beyond one’s self. Awareness is capable of experience. Awareness as perception requires data as an input. This data describes that of which it is aware. Awareness as knowledge requires memory (or every instant would appear to be the first) and some very rudimentary processing since perception is eventually processed into knowledge. Knowledge represents information and is a property of Consciousness. Awareness can only be implemented within an information system -- i.e., a system that provides for data input and output, memory and processing. Memory inherently carries the assumption of time.

3. **Will** is awareness focused toward the achievement of a specific goal. Defining and achieving a goal requires both choices and change which carries an implicit assumption of time (before, during, and after the goal was achieved or choices made – defining past, present, and future) and the ability to process data into information (otherwise awareness would remain static and could not evolve). Will can only be implemented within an information system (a system that provides data and dynamic (time based) processing as well as memory (required to support processing) and purpose (required to develop a meaningful goal – e.g., system entropy reduction to facilitate evolution). The “distance” to the goal and the affect that past choices have made to that distance are information outputs that become the input to the next iteration of processing and choice. To achieve a goal effectively requires the evolution of an iterative process called learning.

4. **Intent** is the expression of active will within Consciousness to achieve the desired goal through purposeful choice. **Will** answers the question “what?” and provides the goal. **Intent** answers “how?” and provides the idea (plan, process, vision, or conceptualization) of **how** a specific choice might move the system closer to the goal. Thus Intent contains the driver, motivation, thrust, impulsion, and the impetus or reason behind the choice or action in making a specific choice. Morality is attached to the being-level intent, not the choice.

Making the choice executes change in the system (hopefully moving it toward its goal). The systems purpose defines its most general overall goal (decreasing system entropy), but there are many specific sub goals that must be dealt with by will and intent in the process of moving a system, one small step (dynamic iteration) at a time, toward satisfying its purpose.

Will and Intent are an expression of Consciousness, they are rooted in the whole individuated unit of Consciousness (IUIOC), not just the intellectual part. Because common usage often assumes that Intent is the result of an intellectual process there is room for some confusion here. When talking about the Intent of the whole Conscious entity (primarily Intent expressed at the being level for normal individuals) we use Intent with a capital “I” sometimes referred as “big I Intent”. And, when talking about the common intellect-based intent of an intellect dominated by fear and ego we use intent with a lower case “i” sometimes referred to as “little i intent”. The spelling convention is sometimes difficult to manage among other rules of capitalization, so differentiation between Intent and intent is often left to context. More about the intellectual and being levels can be found below.

5. **Consciousness** (sometimes referred to as “mind” or “awareness”) is an evolving (self-modifying) awareness that employs both **will** and **intent** to facilitate its **evolution**. An

awareness that makes intentional, willful choices is called a Consciousness. Without employing will and Intent, awareness would be extremely limited, entirely passive, and not what we define here as conscious. To effectively utilize **will** and **intent** in the service of evolution requires Consciousness to have input (from an internal and/or external environment), memory, ability to process data and information, and a purpose. Moreover, the will of Consciousness is **always** free to make choices that are contained within its **decision space**. A Consciousness always has a choice, i.e., a Consciousness cannot have a zero decision space and remain conscious or have a free will. Consciousness and free will (and thus a finite decision space) are logically necessary for each other to exist. Consciousness can only be implemented within an information system that has evolved memory, processing, and the ability to change itself through free will choice (in order to facilitate its evolution – i.e., satisfy its purpose). Information systems evolve by decreasing their entropy (creating useful information and the ability to produce better, more useful (to the LCS), responses to incoming data). Entropy is most effectively decreased in the long term when will and intent are applied in such a way that choices are made that move a system toward satisfying its purpose. Within Consciousness, the considered effort of will and intent to move the system towards states of higher or lower entropy, define both the practical value (quality) of the choice and the moral value (quality) of the intent.

Talking about Consciousness as an overarching system which may contain and support many individual awareness's that each represent a small subsystem of Consciousness (which is also commonly referred to as consciousness) may create confusion. Problem: when we say "consciousness" are we talking about the Larger Consciousness System (general consciousness) or individual specific local awareness? Furthermore, because common usage often assumes that "consciousness" is the result of an individual's **intellectual** processes, there is additional confusion. Consciousness is an integral part of the whole entity or being (IUOC), not just the intellectual part. When talking about the whole Conscious entity (where Consciousness is primarily expressed at the being level for normal individuals) we use Consciousness with a capital "C" sometimes referred as "big C consciousness". And, when talking about the **normal** intellect-based awareness (where the intellect is dominated by fear and ego), we use consciousness with a lower case "c" sometimes referred to as "little c consciousness" or "local consciousness". The spelling convention is sometimes difficult to manage among other rules of capitalization, so differentiation between Consciousness and consciousness is often left to context. In summary, big C Consciousness represents the larger system and our individual connection or integration with that larger system while little c consciousness refers to our individual intellectual awareness of us, others, and our environment. Big C consciousness contains little c consciousness. Little c consciousness is a part, a tiny subset, a creation, of big C consciousness. Once you are able to conceive of Consciousness as the super-system that creates everything else, most of the confusion will quickly disappear along with the need to distinguish between the two.

Consciousness, [the larger Consciousness system (LCS) and, thus, all the reality within our knowing] is most accurately modeled by a digital information system. An individuated unit of Consciousness (IUOC), a subset of the LCS, is also best modeled by a digital information system.

Only Consciousness contains information. Consciousness accepts **data** as input and processes that data into saved **information** (meaning, value, and significance to the Consciousness). Likewise, a Consciousness may take a portion of its information and output a description of it in the form of output data in order to communicate to another Consciousness. The data on both the send and receive ends must be in the form of language that is shared by communicating Consciousnesses. Here the word “language” is used very generally. See the definition of “information” above.

An IUOC contains an ever changing knowledge-and-experience base of information called its content. IUOCs experience and interact within VRs. You are an IUOC playing a virtual avatar (your body) in a virtual reality game (your universe). An IUOC may send or receive data as a way of evolving its content. Information is personal to the IUOC and cannot be shared directly, although descriptions of its content, subjectively colored by the IUOC’s quality and content, can be approximately coded into **data** and shared through a common language created (evolved) by cooperating IUOCs.

[Note: In an effort to keep these definitions as simple and straightforward as possible, I have somewhat generalized the IUOC concept and glossed over many details. I have purposely avoided dividing the top level functions discussed here into FWAU, TBC, VRRE and other terms used to describe these concepts with more precision in the MBT books. Perhaps a finer level of detail will be included at a later time. For now, I wish only to present the most basic terms and concepts of MBT to help new users get their bearings without bogging them down with too much detail]

An IUOCs personal information content can be (and is) accurately (objectively) encoded into data by the LCS using a much lower level language (like LCS machine language). The IUOC operating at a higher level of computation cannot accurately express itself in the base language of the LCS. It must express its content subjectively using languages of its own creation or a higher level language provided by the LCS.

Thus the IUOC, at any specific moment, can be expressed entirely in the form of data by the LCS, but this data set is not conscious because it has no awareness, will, intent, decision space or free will – it is simply data describing a snapshot of the content of the IUOCs consciousness. The LCS can reconstitute a conscious entity (IUOC) from this dataset by adding the code (executive function, VR interface, and operating system) necessary to add awareness, will, intent, decision space and free will.

A typical, though dysfunctional, consciousness works (processes) at two distinct levels: the intellectual level and the being level (described below).

[Note: Focus toward achieving a specific goal from among many potential goals (perhaps also within a hierarchy of goals), requires a focused assessment of the direction forward (will) and a clear intention (vision and plan) that may suggest a specific choice. The choice, because successful evolution cannot be entirely random, requires memory (of previous choices), processing (a comparative result of those previous choices -- learning) and a purpose (criteria by which to compare the value of one choice to another). Change (as evidenced by choice, memory, processing, and learning) carries an implicit assumption of time – which delivers dynamic existence. A choice once made is irreversible and moves the system forward (positive evolution to states of lower entropy) or backward (de-evolution to states of higher entropy) to a new state of being.

A good choice (as opposed to a bad choice) moves the Consciousness system toward lower entropy states (positive evolution – becoming love). It is generally a moral (also called high quality or love based) intent that expresses itself as a good choice that increases the quality (lowers the entropy) of the individual and the consciousness system. Will and intent are attributes of a whole individuated unit of Consciousness (IUOC) and not simply creations of the intellectual level of a consciousness.]

6. **Evolution** represents the process of emergent complexity that naturally begins (self-starts as a natural process of self-organization) when there are enough degrees of freedom available within a system of sufficient potential to eventually produce (through random changes) basic survivable structures (e.g., like a cell) which leads to even more complex survivable structures (like a multi-celled entity) made of many interactive basic structures as natural selection of evolution progresses. Next, evolution produces functional specialization within multi-celled entities. In systems with many complex potential outcomes, evolution directs and encourages change (through natural selection) toward more profitable states of being (lower entropy configurations). The model for this primordial process of evolution by emergent complexity exists within the model for the development of IUOCs and the RWW within the LCS as per the model within MBT and as detailed in the Wiki.

[Note: The existence of evolution as a natural process is one of two assumptions of MBT. The second assumption is that awareness, will, intent, and Consciousness all eventually evolve or emerge together within an information system of sufficient potential. We see evolution at work every day and we are indeed conscious, thus evolution must exist and Consciousness did evolve. A crude primordial information system that simply can

qualitatively differentiate one state from another (create information) is the simplest most straightforward and basic system that has the potential to evolve into what we call Consciousness. Only from **outside** of a given system can one see the **beginning** of that system. Because we, as subsets of Consciousness, are **within** the LCS, we can do no more than start MBT with an **assumption** that, at the beginning of the beginning, some sort of primordial Consciousness existed. Occam's razor suggests starting with the fewest and simplest assumptions, and that is where MBT has started.]

7. **Decision space** represents all the choices (options) one has access to (from the intellectual or being level) at any given time and from any given perspective such as PMR or NPMR. These do not include choices that are theoretically or potentially available but one has no immediate awareness of, or access to, them. To be conscious, one must have a finite decision space. Within the normal person, the decision space contains competing options that represent all the drivers of choice within the awareness (will, intent, intellect, ego, belief, Consciousness quality, attitude, emotion and feeling) all simmering within a pungent soup of fear and love. These drivers of an IUOC's choice represent the force behind how it chooses to interpret whatever data it receive from the data-stream and then how and why it chooses a specific response to that interpretation. Choice cannot be completely removed or eliminated from a conscious individual. If choice is entirely eliminated, the individual is no longer conscious.

Will (goals), intents and choices are **not** made exclusively at the intellectual level. The intellectual level and the being level, within a normal or typical individual, work together to produce goals, intents, and choices -- however, either level **may** be dominant in directing the choice. One may try to give up personal responsibility for making a choice, or try to assign that responsibility elsewhere, but the choice remains and it remains yours (the whole IUOC) to make or not. Not making a specific choice is a choice. A choice once made usually alters the size and content of the decision space from which it was chosen as well as the decision spaces of others who are interactively involved with the chooser. Consciousness is an interactive multiplayer game.

8. **Free will** is the ability of a Conscious awareness to freely make or not make any of the choices in one's decision space. Making a free will choice is rooted in the whole Consciousness, not just the intellectual part of a dysfunctional consciousness. Free will is logically necessary for consciousness to exist and consciousness is logically necessary for free-will to exist. Your body, your avatar is only data in a simulation and has no free will. You, as an individuated unit of consciousness playing your virtual avatar character (apparent physical body) in a multi-player virtual reality that we call our physical universe, must have free will to make choices that enable your evolution. Otherwise, there could be no point, purpose, or value to your individual existence – no growth, no progress, no

substance, no becoming something more or something different – just a dead unchanging data-script that exists for no reason.

- 9. The Intellectual level** reflects what you think. As the seat of your intellect, it represents who and what you would like to think you are as well as what you think about others relative to yourself. It represents the **image** you have of yourself and of the rest of the world. It is aware and processes information, assesses, analyzes, judges, imagines, and plans (thinks) in a way that it usually can justify as rational and reasonable (whether it is or not in the eyes of anyone else). It may contain and be driven by intellectual knowledge, love, fear, ego, expectations, beliefs, and may feel pain and joy. It makes choices and expresses will and intent at the intellectual level. It tends to see the world as arrays and sequences of little pictures – it generally represents left brain function.

The connection between fear, ego and intellect: Ego is defined below as awareness in the service of fear -- it always has a neutral to **negative** impact on the evolution of consciousness. Awareness in the service of love always has a neutral to **positive** impact on the evolution of consciousness. Your awareness is the root of your intellect. Your awareness and intellect represent the information collection and processing function for your IUOC. Thus, the intellect may have both positive and negative components. The typical IUOC is mired in fear, ego, belief, and expectation – dominated by the negative perceptions, actions and intents that expresses its lower quality. However, this same IUOC also contains some of the positive perceptions, actions and intents that expresses its higher quality. Our purpose is to reduce fear, ego, belief, and expectations and move toward love. The typical IUOC's intellect is not fundamentally a negative thing, it is simply primarily consumed with defending, excusing, justifying, covering up, acting out, and expressing, the fear that dominates, or drives the intent of, the individual. Consequently, the intellect is often portrayed as a dysfunctional part of the being that makes growth problematical. To be sure, the fear and ego, **not the intellect**, is the fundamental cause of the problem – the intellect simply serves the fear. It is the intellects job to serve the needs of the IUOC. If the IUOC is predominately fearful (as most of us are), then the IUOC's intellect predominately serves fear.

The intellectual level usually is not fully aware of what is processing within the being level though it often strongly reflects it and then tries to justify it. The intellect uses ego and belief to counterbalance its fear.

When you change (learn and grow) at the intellectual level, you create a larger decision space (greater awareness) and a new image of yourself and others – you do not necessarily change the quality of your Consciousness (evolve) unless this intellectual level change is internalized (also produces change) at the being level. The evolution of Consciousness must take place at the being level. Knowledge (intellectual content) alone cannot increase the quality of your Consciousness. To change (grow up or evolve) at a

fundamental level, one must change who and what they are, not simply who they think they are, what they want to be, or what they know about the world.

10. The Being Level reflects who and what you are at the core of your being – i.e., within your IUOC. As the seat of emotion and intuition, it feels and empathizes. It is aware and processes information, assesses, analyzes, judges, imagines, and plans **intuitively**. It does not have to justify itself as rational or reasonable – it just is as it is. It may contain and be driven by intuitive knowledge, instinct, love, fear, ego, expectations, beliefs, and may feel pain and joy. It makes choices and expresses will and intent at the being level. It tends to see the world as an interconnected whole – it generally represents right brain function. The being level sometimes pays attention to processing at the intellectual level but is not ruled by it. Contrary to change at the intellectual level, when you change fundamentally (personal growth, spiritual growth, grow up) at the being level, you may evolved or de-evolved the quality of your Consciousness, thus becoming a different person. Change at the intellectual level may or may not result in change at the being level.

[Note: The “you” that the being and intellectual levels reflect and represent is the “you” as Consciousness (as an IUOC) not the “you” as the virtual body of your avatar. The right and left hemispheres of your virtual (“physical”) brain simply represent a logical requirement of the rule-set as it constrains evolution within our Virtual reality (VR). Virtual brain structure accommodates the potential particularities of your avatar and the quality of your Consciousness. . The constraints of the VR define what data can and cannot be in the data-stream sent to each IUOC player describing VR (“game”) content and interactions. The virtual reality that we describe as “physical” exists only in the awareness (mind) of the IUOC players and the LCS.

The being level and intellectual level only exist as **separate and distinct** entities within a conscious being if that being is fearful (makes fear based choices). The inability of the intellect to deal directly, straightforwardly, and effectively with some fears creates the unnatural and dysfunctional separateness between these two levels of Consciousness processing. The fear is pushed out of sight of the intellect but remains active at the being level. The ego is employed to help the intellect ignore (rather than deal with) the fear. Remove the fear and the intellectual level becomes one with the being level. Without fear, the intellectual and being levels meld together to form an optimized, unified, aware, **whole being**. A being with a fully self-aware and other-aware Consciousness that effectively integrates and optimizes the combined functions of both virtual hemispheres. Separateness between the intellectual and being levels is pathological. A healthy, whole, fully conscious being (without fear – thus without ego, expectation, and belief) is fully self-aware of all of his intents, ideas, inclinations, instincts, internal processes, intellect, feelings, and intuition. There is no obscured or “subconscious” portion of the mind – the existence of

a “subconscious” is a symptom of a dysfunctional, high-entropy Consciousness – in other words, it perfectly represents a normal and therefore comparatively “healthy” member of our society. {Remember, in a virtual reality constrained by a rule-set, a **virtual** brain manages (takes care of all CNS functions such as autonomic reflexes, digestion, circulation, hormone release, etc.) a **virtual** body that interacts within a **simulation** of a **virtual** world. Interaction within the virtual world serves to define the constraints placed upon the data stream that is sent to a healthy **real** Consciousness that has no subconscious function. Consciousness (The LCS) is the only thing that is real, everything else is virtual – see definition for virtual reality below}]

11. **Love**, the opposite of **fear**, is about other – it is creatively expressed as compassion toward, and caring about, other – it expresses itself in terms of service and value to others. **Love** is awareness expressing an intention to be caring, helpful, and useful to others. To be more precise, compassion and caring, service and value, being helpful and useful to others are the results of awareness acting on a love based intent which is also a fearless intent. Love is the fundamental nature of a low entropy Consciousness. Love is given away at the being level while need is negotiated at the intellectual level. When you eliminate a “normal” being’s high entropy fear, his ego and beliefs also drop away and what you have left is a very abnormal low entropy being of love. Thus love as used here extends much beyond the more normal English language concept expressed by the English word love and related most strongly to Eros. It rather includes most of the other aspects perhaps expressed in other languages and also including such concepts of compassion, caring, and empathy.

Loving yourself is called Narcissism and is very dysfunctional. Not feeling negative about yourself is necessary and the first step to growing up and getting rid of your fears.

12. **Fear**, the opposite of **love**, is about self – Fear is creatively expressed as ego, belief, and expectation – it expresses itself in terms of value to itself: I need, I want, I believe, I expect, I deserve. To be more precise, ego and belief, self-centeredness and expectation are the results of awareness acting on a fear-based intent. Fear is the fundamental nature of a high entropy Consciousness. Fear resides at both the intellectual and being levels. Without fear, there is no ego, belief or expectation and the intellectual and being level become one without differentiation. As fear is decreased, awareness and decision space increases.

13. **Ego** is not simply self-awareness – as we have said above, a sense of self, a sense of one’s own existence is both necessary and good – otherwise there could be no collective experience or learning. Freud called awareness that is not in response to fear “super ego” while we simply refer to it as the expression of love. While love expresses awareness in

the service of others, **Ego** expresses awareness in service to fear – thus, **Ego** is the result of awareness acting on a fear- based intent. Ego resides at both the intellectual and being levels.

[Note: “Ego”, as defined here, from the more **theoretical** MBT point of view, might seem to be quite different than the usual Freudian definition. However, from a **practical** point of view, MBT’s “ego” and Freud’s “ego” are almost identical. Freud observed ego and its dynamics in the people he studied. His model is empirical – i.e., based on his observations – a practical model. The people he studied were almost entirely driven by fear and lived in a society driven by fear -- as is, and as do, almost everyone on our planet. The ego he observed and assessed was self-awareness driven by fear, which is exactly the same as how MBT defines ego. Because such an ego was **normal** to himself and others who seemed to be **comparatively** healthy and doing well within their dominantly fear based society, ego was also defined to be a necessary and healthy part of an individual. From the warped perspective of fearful individuals within a fear based society, having no ego would appear to be dysfunctional. However, as mentioned above, Freud did notice something within the capacity of human awareness that remained outside of the normal, dominant, fear-based pathological self-awareness (ego) – he called that “super ego”. Freud did **not** make the connection that super-ego (what we call love) was a characteristic of healthy low entropy (more highly evolved) Consciousness while ego was a characteristic of dysfunctional high entropy (less evolved) Consciousness. If he had made that connection, he would have had to place most all of humanity as well as himself and most, if not all, of his associates and potential supporters in the “dysfunctional” or “pathological” category”. That would have not been a theory that would have gone far or become popular – such an idea (choice) was probably unthinkable and thus, not in his decision space.]

14. **Belief** occurs when you really want to know but do not have the facts... you simply believe you know. Disbelief is another form of belief. If you want to know, or fear not knowing, and are unable or unwilling to discover sufficient facts, a belief fixes that problem – it also, at the same time, eliminates (greatly reduces) the possibility of finding out. Once the belief is made, information conflicting with the belief is easily discounted, disregarded and ignored.

15. **Virtual reality (VR)** is a computed reality **structure** defined by data that represents the possibilities and constraints of an interactive multiplayer “game” (environment, rules, and individual characteristics and abilities of the game elements and pieces). VRs are constructs of data. Board game analogy: The VR represents the game board (environment), game rules of interaction, and the game pieces (avatars) that the **players** play. An individuated unit of **Consciousness** (IUOC) represents the individual player. “Our VR” and sometimes “the VR” refers to the virtual reality that we call our physical universe (physical matter reality -- PMR) – i.e., the VR in which our “physical” body is a

virtual character or game piece called an avatar. Our VR is an **evolving** simulation (according to the initial conditions and rule-set) that defines the constraints placed on the data-streams being sent to each IUOC player. **Consciousness**, in the form of the Larger Consciousness system (LCS), is the creator (but not the programmer – there is no programmer) of the VR, and of the IUOC (which is a part of the LCS). Consciousness is an **evolving, aware** entity with will and intent that emerged (evolved) within a digital information system. Because **evolution** is an open ended, dynamic process of continuous change, any evolving entity must continue to evolve (to lower its entropy) or de-evolve (increase its entropy – eventually self-destructing or dying) within the constraints of its environment. Thus, positive evolution becomes the most fundamental purpose of all entities (survive and live or disintegrate and die). Conscious entities **can** be directly aware of that purpose and purposely make choices that actualize it – thus optimizing the Consciousness evolution process for such an entity.

Rudimentary awareness of this versus that (1 vs. 0) eventually evolves into the LCS, which, in turn, evolves (instead of programs) VRs and IUOCs. IUOCs eventually facilitate and accelerate their opportunities for positive evolution by becoming the free-will awareness, will, and intent, (Consciousness) of a virtual avatar in a multi-player, interactive, **evolving** virtual reality originally defined by initial-conditions and a rule-set.

Consciousness (the LCS) is a digital information system (contains data, content, memory, processing ability, and the purpose to continue evolving). IUOCs are subsets of Consciousness. The LCS creates rules, processes and protocols to define how data may be exchanged between IUOCs as they function within VRs. These rules, processes and protocols (rule-set) define a virtual reality (VR) that enables interaction between IUOCs and thus creates individual IUOC choice (free will) and experience. In order for an IUOC to express free will, gain experience, and evolve it must be a “player” in a VR. Players receive data streams from the VR server (LCS) that enable them to interpret their interaction with the VR environment and other players.

The rule-set defines the nature of the VR. [The rule-set may be minimal, simple, and unrestrictive (loose) or complex and profoundly constraining (tight). Tight rule-sets are used to **evolve** a virtual reality like our PMR. A somewhat looser rule-set may define a VR like the one we visit in our dreams, in out of body experiences (OBEs), lucid dreams, or upon our “death” in the PMR VR. Loosen the rule-set more and one may experience a VR that is somewhat like being in a telepathically connected chat room with one or many others.] In order to have experience and express free will choice, an IUOC must be within a virtual reality that contains something to interact with (like other IUOCs or an “external” environment defined by VR data). The LCS or an IUOC may define its own set of rules thus create a VR of its own. Thus VRs may be nested one within another.

Only thing that is fundamentally real within the bounds of our knowing is Consciousness. All else is virtual. All experiential reality frames are virtual. There is no fundamental experiential reality frame – all have their own server within the LCS and a specific purpose. All of these VRs with specific purposes, along with their IUOC players, contribute to the system level purpose of continuing the evolution (survival) of the LCS.

16. **The Consciousness evolutionary process** (game) works like this: **Experience happens** (among interactive players and the set) within this virtual reality, and **you** (IUOC), as the mind of your avatar in the VR, have to deal with that experience by making choices that are inspired by your goals and intents (you react to your experience). The **quality** of your goals and intent leads to specific choices that over time cause you to **evolve** or **devolve**. Each choice is based on intent (vision, planning, motivation) that is either **fear-based** or **love-based**. Goals-Intents-choices that are neutral, eventually lead to stagnation which eventually leads to deterioration (de-evolution) and a more limited set of choices. A choice is good if it leads to lower system entropy (positive Consciousness evolution – evolving toward becoming love). Moral intentions almost always lead to good choices and will always, in the long run, lead to lowering system entropy. Our interactive, multiplayer VR (our apparent physical reality) is designed to create challenging experiences leading to productive choices by the IUOCs. Think of it as an entropy reduction trainer for Individuated units of Consciousness (IUOCs – pieces of the LCS) created by the Larger Consciousness System (LCS) to facilitate the evolution of itself in order to survive and live rather than the alternative: disintegrate and die.

The LCS is an aware, imperfect, finite, evolving Conscious entity in the form of a large digital information system. At the root, there is nothing but information and data – everything, every idea, thought, desire, feeling, emotion, star, rock, brain, atom, space and time can be reduced to information and data -- and all interaction reduced to communication. Positing anything more is logically unnecessary (unnecessary assumptions and unnecessary complexity) since all can be directly derived from this single starting point. An understanding that, at the most fundamental level of our “physical” reality, there is nothing but data (which scientists typically refer to as information) is an idea that science is now embracing more and more every day.

17. **Two fundamental errors** create most of the confusion about the big picture of PMR. The first is materialism, especially in the form of material reductionism – that all causality and reality is physical and can be **reduced** (top down view) to interactions within layers of **ever smaller** physical particles – i.e., the material world is composed of molecules that are composed of atoms that are composed of electrons, protons and neutrons that are composed of elementary particles. The second error is what is called the “hard problem” of

consciousness – the belief that little c consciousness is created in the material brain from material particles and that big C Consciousness does not exist.

The first error cannot be **entirely** eliminated by simply stating that reality is data-based (virtual) rather than matter-based and that the VR is computed in “Other” as long as one still assumes that the VR is constructed (bottom up view) from successively more complex layers of interactions of virtual particles – i.e., virtual elementary particles create virtual atoms that create virtual molecules, that create virtual macro-world perceived by a player constrained by a virtual avatar’s sense perception.

The PMR VR is a probabilistic simulation that sends a data stream to each IUOC player defining what the player’s avatar is sensing through his five virtual senses. That data stream, which defines reality to the avatar’s player, is **not** calculated from considering material or virtual particles. Instead it is drawn from a probability distribution of possibilities that conform to the rule-set. The calculation has nothing to do with small material or virtual particles unless the avatar is indeed indirectly looking at small particles in an atomic laboratory of some sort.

Except in the most unusual of circumstances, the smallest level of detail required to calculate the data stream describing what the avatar would sense can be produced by classical considerations of the macro world as anticipated by probability calculations based on past data. There is no advantage or reason for the LCS to keep track of individual molecules, much less basic atomic and subatomic particles. The Larger Consciousness system (LCS) is, for the most part, a probability and statistics based system. It does **not** compute our virtual reality (the VR we call the physical universe) deterministically, that is, starting from the smallest particles and building up to the macro world of our senses (bottom up). The LCS never employs any more detail or fidelity in its statistical and probabilistic modeling of our VR than is absolutely necessary to produce a result that is consistent with the rule-set and past measurements.

The probability of every possibility is not calculated and just hanging around in case some player might need that data. Probability distributions are generated as needed. Remember that the LCS has many trillions of cycles of processing (see pages 262 and 263 in Book 1) in which to compute probability distributions between the successive time increments that drive our VR. Those probability distributions contain **most** of the more likely possibilities (i.e., possible configurations of PMR) that are in consonance with the rule-set. (The calculation of probability distributions may leave some possibilities out if they have probabilities smaller than some practical lower limit like $10 \exp-18$ -- one in a billion billion. The lower limit-criteria is likely situation dependent. So when you look in your microscope at something new, the system doesn't invent a causality to justify what you see -- it already

has a causality in the form of the rule-set. The system simply calculates a probability distribution with no more resolution than necessary such that when the next DELTA-t comes up, and you make a measurement, it is ready for you -- and one of the possibilities is randomly picked to become the PMR fact (what you see).

Actually, because DELTA-t is so small this whole process of delivering just the right probability distribution to you at just the right time most likely started many DELTA-t earlier and has been converging to the best answer for the least amount of work for a **relatively** long, long time (like a tiny fraction of a VR nanosecond). The complexity of the problem, the practical limit on possibilities considered, how much time is allotted for converging to an adequate distribution, and the resolution required, are all very likely parameters that are carefully chosen to make the process as efficient as possible. However, the system only needs to do these very detailed calculations once and then only on first discovery (after that it is a PMR fact that can be looked up). The overwhelming majority of the system's required probability distribution calculations in support of a given DELTA-t are related to mundane choices and "measurements" that are very similar to choices and measurements already made many millions of times and should be trivial to calculate in terms of probability.

Fortunately, because of the uncertainty (breadth of possibilities) that naturally surrounds almost every non-mundane "measurement" (player's interpretation of avatar sense data), there are generally a large number potential results that can meet the requirements of the rule-set and still maintain a VR that is consistent enough to satisfy the needs of the players and the purpose of the VR. Thus every possibility does not have to be calculated and assessed all the time. Where there is more natural uncertainty, the fidelity of probability models can be reduced. Where there is less uncertainty (like the measurements taken in a scientific experiment) the probability models need to be more precise. Of all the measurements (Avatar sense data) occurring in our VR in a day that are subsequently reflected in player's data streams, only a very tiny fraction require high fidelity modeling. Medium to low fidelity is usually "good enough".

Using probability and statistics, the LCS can compute our VR (compute and send all the data streams representing avatar sense data to each player) to a level of detail that is completely adequate using only a minute fraction of the computational resources required to support a deterministic computation. A deterministic calculation of our VR serves no purpose other than to support the viewpoint of material, or even virtual, reductionism.

When a specific player-avatar begins to measure its environment to a level of detail never seen before, the LCS does what it always does. It creates a probability distribution of the possibilities according to the rule-set which, may, in the realm of measuring the very small, require detailed particle-level probability calculations (but only at the site of the

measurement). A random draw of one of the possibilities from that distribution provides the avatar the result of his measurement. Each measurement, whether at the macro or micro level, adds constraints that modify the probability distributions of future similar measurements in order to produce a consistent VR. Remember, the LCS has memory and can use the results of many previous detailed calculations to develop probability distributions for new measurements that push a step deeper into the causal logic of our VRs rule-set. In other words, the bulk of the fine detailed calculations only need to be done **once** – or perhaps only enough times to create a useful statistical ensemble. The LCS has no doubt already explored the logical possibilities of our VRs rule set far beyond what our science now understands. It is much easier to draw on the knowledge of past calculations in order to develop new probability distributions to service a relatively minute number of player-avatars who are engaged in digging deeply into the logic of our VRs causality. Furthermore, there are billions of billions of computational cycles available to the LCS between a relatively small number of VR time cycles to easily achieve just-in-time calculations of the necessary probability distributions needed to support Our VRs evolution according to the rule-set.

Furthermore, there is no compelling reason to assume that any of the fundamental particles actually exist as particles -- tiny chunks of mass, charge, or spin. Scientists measure the **effects** of particles, never the particles themselves. They infer the particle from the measured effect...**as if** a particle existed. Particles are simply assumed in order to create a causal particle model that supports the belief of material reductionism ushered in by Newton. The underlying reality is likely to be probabilistic rather than material particles since probability is fundamental to the VR while particles are the imaginary result of a belief in the Newtonian world view (The material causality of the clockwork universe). Indeed, eighty years ago, the double slit experiment forced physicists to abandon the concept of little chunks of mass and charge (called electrons) orbiting the nucleus in favor of a more accurate picture of a probability cloud surrounding the nucleus. Quantum physics is only successful when it describes these assumed material particles as probability distributions. The reason for this is because they **are** probability distributions. We insist in calling them particles only because of an irrational belief in materialism and material reductionism. The Newtonian world view seems exceedingly difficult for scientists to let go of.

The second error also cannot be entirely eliminated by simply stating that reality is data-based (virtual) rather than matter-based as long as one assumes that consciousness or Consciousness is still constructed from the successively more complex layers of interactions of **virtual** particles. That merely shifts the belief that consciousness is built up in the brain from material processes to a similar belief that consciousness is built up in the virtual brain from virtual processes. Consciousness is more than data and a virtual calculated world created by data can create nothing but data. Data, by itself, cannot create, or evolve to become, Consciousness. Recall from the above definition of information that Consciousness is required to create information from data and to create data from

information. Without Consciousness, there can be no calculated VR data, and without a **highly evolved** Consciousness there can be no sophisticated virtual realities like ours. Consciousness is logically prior to VRs like ours.

There are many VRs of various types within the LCS. Our VR is one of many such VRs defined by tight rule-sets – our VR is a tiny part of the LCS. In MBT theory, primordial Consciousness is simply assumed to exist. From this assumption, Consciousness as we know it (the LCS) evolves, and in the process generates multiple VRs as need to facilitate its evolution. Starting with an assumption of Consciousness is both logically necessary and reasonable because we know from personal experience that consciousness does exist, however, because we are subsets Consciousness we cannot see or experience how our parent (the LCS) was birthed. We can only offer up conjecture, since there are theoretical limits to our knowledge. Only from **outside** of a system can one see the **beginning** of a system. Because we, as subsets of Consciousness, are within the LCS, we can do no more than start MBT with an **assumption** that at the beginning of the beginning (perhaps long before our LCS existed since VRs can be nested), some sort of primordial Consciousness did, in fact, exist.