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The Theoretical Ramifications of the Computational Unified Field Theory

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1. Introduction

Four previous articles (Bentwich, 2012: a-d) have postulated the existence of a novel 'Computational Unified Field Theory' (CUFT) which is a candidate 'Theory of Everything' (Brumfiel, 2006; Ellis, 1986; Greene, 2003) – i.e., has the potential of unifying between quantum (Born, 1954) and relativistic models of physical reality (and moreover also possesses the potential of opening new 'vistas' for scientific examination connected with its discovery of a new hypothetical 'Universal Computational Principle which carries out an extremely rapid computation, c^2/h of a series of Universal Simultaneous Computational Frames, 'USCF's, which give rise to all 'apparent' secondary computational 'physical' properties of 'space', 'time', 'energy' and 'mass'); Indeed, the primary focus of the current manuscript is precisely to explore the potential theoretical ramifications of this novel CUFT – based on the recognition that the (singular) Universal Computational Principle ('') solely produces all (apparent) secondary computational 'physical' properties of 'space', 'time', 'energy' and 'mass', and hence comprises the sole "reality" (which produces all exhaustive hypothetical inductive and deductive phenomenon through a higher-ordered 'a-causal' computational framework; this may subsequently bear significant theoretical ramifications for all (key) 'material-causal' scientific paradigms as well as point at the discovery of a (new) '*Universal Consciousness Principle Computational Program*', as well as outline potential resolutions of major Physical 'enigma's;

Hence, the current manuscript traces the potential theoretical ramifications of:

- a. An 'a-causal' computational framework of the (CUFT's) singular Universal Consciousness Principle's ('') responsible for the (higher-ordered) computation of all exhaustive hypothetical (e.g., empirically knowable) inductive or deductive 'x-y' pairs series – which leads to the discovery of a-causal '*Universal Consciousness Principle Computational Program*'.

- b. An exploration of the CUFT's Universal Consciousness Principle's ('') and Duality Principle's (Bentwich, 2003c, 2004, 2006) reformalization of all (apparent inductive or deductive) major SROCS computational paradigms (e.g., including: Darwin's 'Natural Selection Principle' (Darwin, 1859) and associated Genetic Encoding hypothesis, Neuroscience's Psychophysical Problem of human Consciousness and all inductive and deductive Gödel-like SROCS paradigms).
- c. Theoretical Ramifications of the Universal Consciousness Principle.

2. A singular 'a-causal' universal consciousness principle computation of all inductive and deductive 'x-y' relationships

We thus begin with an exploration of three potential theoretical ramifications of the CUFT's description of the operation of the (singular) Universal Consciousness Principle ('') which has been shown to compute an extremely rapid series of Universal Simultaneous Computational Frames (USCF's);

The Universal Computational/Consciousness Principle was (previously) shown to encapsulate a singular higher-ordered 'D2' computation of an 'a-causal' computation of the "simultaneous co-occurrences" of all exhaustive hypothetical inductive or deductive (e.g., empirically knowable) 'x-y' pairs series; Therefore, the acceptance of the CUFT's description of the Universal Consciousness Principle necessarily implies that throughout the various (inductive or deductive) disciplines of Science we need to shift from the current basic (Cartesian) "material-causal" scientific theoretical towards a singular (higher-ordered 'D2') '*Universal Consciousness Principle's a-causal computation*':

This means that the current (Cartesian) 'material-causal' scientific framework assumes that any given 'y' element (or value) can be explained as a result of its (direct or indirect) 'causal' interaction/s with another (exhaustive hypothetical inductive or deductive) series of 'x' factor/s – which determines whether that 'y' element (or value) "exists" or "doesn't exist", thereby comprising a 'Self-Referential Ontological Computational System' (SROCS) (Bentwich: 2012a-d):

SROCS: $PR\{x,y\} \rightarrow [y \text{ or 'not } y'] / di1 \dots di n$.

But, since it was previously shown that such SROCS computational structure inevitably leads to both 'logical inconsistency' and 'computational indeterminacy' that were shown to be contradicted by robust empirical findings indicating the capacity of the major scientific SROCS paradigms to be capable of determining the "existence" or "non-existence" of the particular 'y' element, see Bentwich 2012b) – then the CUFT's 'Duality Principle' asserted the existence of the singular 'Universal Consciousness Principle' ('') which is capable of computing the "simultaneous co-occurrences" of any particular (exhaustive hypothetical) 'x-y' pairs series which are embedded within the Universal Computational/Consciousness Principle's rapid series of USCF's.

What this means is that both specifically for each of the (previously identified) key scientific SROCS paradigms as well as more generally for any hypothetical ('empirically knowable')

inductive or deductive ('x-y') phenomenon, we must reformulate our scientific understanding in such a way which will allow us to present any such 'x-y' relationship/s as being computed by the singular Universal Consciousness Principle (e.g., as the computation of an exhaustive-hypothetical "co-occurring" 'x-y' pairs' series); In that respect, this (novel) 'Universal Consciousness Principle's' scientific framework shifts Science from its current basic (Cartesian) assumption wherein all natural phenomena can be described as 'material-causal' ('x→y') relationships (e.g., comprising the apparent SROCS computational structure contradicted by the computational Duality Principle) – to an 'a-causal' singular Universal Consciousness Principle which computes the simultaneous "co-occurrences" of any inductive or deductive 'x-y' pairs series comprising the various 'pixels' of the USCF's frames (e.g., produced by this Universal Consciousness Principle).

Finally, it should be noted that a key principle underlying this shift from the current 'material-causal' (Cartesian) scientific framework towards the CUFT's (proven) higher-ordered singular Universal Consciousness Principle's ('') 'a-causal' theoretical framework is the acceptance of the impossibility of the existence of any such 'material-causal' ('x-y') relationship/s – i.e., due to the impossibility of any 'physical' entity, attribute (or property) being transferred across any (two subsequent) 'USCF's frames: Thus, apart from the (previously shown) conceptual computational proof of the 'Duality Principle' wherein due to the inevitable 'logical inconsistency' and 'computational indeterminacy' arising from the SROCS computational structure (which is contradicted by empirical evidence indicating the capacity of these key scientific SROCS paradigms to compute the "existence" or "non-existence" of any particular 'y' element or value) – which points at the existence of the higher-ordered (singular) 'Universal Computational/Consciousness Principle that computes the "simultaneous co-occurrences" of any (exhaustive-hypothetical) 'x-y' pairs' series; it is suggested that the inclusion of this computational Duality Principle as one of the (seven) theoretical postulates of the CUFT (e.g., specifically alongside the CUFT's 'Computational Invariance' and 'Universal Consciousness' postulates) unequivocally asserts that there cannot (in principle) exist any 'material-causal' effect/s (or relationship/s) being transferred across any (two subsequent) USCF's frames! This is because the CUFT's very definition of all four 'physical' properties of 'space', 'time', 'energy' and 'mass' – as secondary computational by-products of the (singular) Universal Computational Consciousness' computation of (an extremely rapid series of) 'Universal Simultaneous Computational Frames' (USCF's); and moreover the CUFT's 'Computational Invariance' postulate indication that due to the 'computational variance' of these four (secondary computational) 'physical' properties (e.g., as existing only "during" the appearance of the USCF frames but 'non-existence' "in-between" any two such subsequent frames, see Bentwich, 2012:c-d) as opposed to the 'computational invariance' of the 'Universal Consciousness Principle' (''), we need to regard only this singular (computationally invariant) 'Universal Consciousness Principle' as "real" whereas all four (secondary computationally variant) 'physical' properties must be regarded as merely 'phenomenal' (i.e., as being comprised in reality only from the singular Universal Consciousness Principle); Therefore, the CUFT's 'Universal Consciousness Principle' advocated that none of these four (secondary computationally variant) 'physical' properties (e.g., of 'space', 'time', 'energy' or 'mass') "really" exists – but rather that there is only this one singular Universal Consciousness Principle which exists (solely) "in-between" any

(two subsequent) USCF's frames and also solely produces each of these USCF's derived four 'phenomenal physical' properties; Hence, it was evinced (by the CUFT's Universal Consciousness Principle) that there cannot be any 'transference' of any hypothetical 'material' or 'physical' entity, effect, or property across any (two subsequent) USCF's frames! We therefore reach the inevitable theoretical conclusion that the current scientific (Cartesian) 'material-causality' basic assumption underlying all key scientific SROCS paradigms as well as all (empirically knowable) 'Gödel-like' (inductive or deductive) SROCS 'x-y' relationships, wherein there exists a 'material-causal' effect/s (or relationship/s) between any given 'x' element and any (exhaustive hypothetical) 'y' series which determines the "existence" or "non-existence" of that (particular) 'y' element (or value) – is untenable! Instead, we must accept the CUFT's assertion that there can only exist one singular 'Universal Consciousness Principle' ('') which both (solely) produces- all (apparent) secondary computational 'physical' properties (of 'space', 'time', 'energy' and 'mass'), as well as computes the "simultaneous co-occurrences" of any (particular) exhaustive-hypothetical inductive or deductive 'x-y' pairs series (e.g., comprising the exhaustive USCF's frames).

3. The "universal consciousness principle's computational program"

Therefore, it follows that based on the recognition of the singularity of the Universal Consciousness Principle's 'a-causal' computation of the "simultaneous co-occurrences" of all (inductive or deductive) 'x-y' pairs' series (as comprising the exhaustive USCF's frames) – we need to be able to reformulate all of the previously mentioned key scientific SROCS paradigms (Bentwich, 2012b-d), including: Darwin's 'Natural Selection Principle' and associated 'Genetic Encoding' hypothesis, Neuroscience's Psychophysical Problem of human Consciousness, as well as all (exhaustive hypothetical) 'Gödel-like' (apparent) inductive or deductive SROCS computational paradigms based on this singular (higher-ordered) Universal Consciousness Principle's ('') 'a-causal' USCF's computation;

Hence, what follows is a description of the principle theoretical ramifications of reformulating each of these key scientific (apparent) SROCS computational paradigms, as well as a more generalized description of a tentative 'Universal Consciousness Principle Program' (e.g., which may offer a successful alternative for 'Hilbert's Mathematical Program' to base all of our human scientific knowledge upon the foundations of the operation of the singular Universal Consciousness Principle). First, it may be worthwhile to rearticulate the reformalization of each of these key scientific (apparent) SROCS paradigms in terms of the operation of the singular Universal Consciousness Principle (as previously outlined: Bentwich, 2012b):

S.:D2: $\{[E\{1...n\}, o]_{st1}; [E\{1...n\}, o]_{st2}... [E\{1...n\}, o]_{stn}\}.$

G.F – P.S.:D2: $\{[G\{1...n\}, 'phi(o)']_{st1}; [G\{1...n\}, 'phj(o)']_{sti}; ... [G\{1...n\}, 'phn(o)']_{stn}\}.$

G.E. – P.S.:D2: $\{[Ge\{1...n\}, pi-synth(o-phi)]_{st1}; Ge\{1...n\}, pj-synth(o-phi)]_{sti}; ... ; Ge\{1...n\}, pn-synth(o-phi)]_{stn}\}$

Psychophysical:D2: $\{[N(1...n)_{st-i} Cs-pp_{st-i}]; ... [N(1...n)_{st-i+n} Cs-pp_{st-i+n}]\}$

Functional: **D2:** $[\{Cs(pp)f_i, Na(spp)fi\}_{st-i}; \dots \{Cs(pp)f_{(i+n)}, Na(spp)f_{(i+n)}\}_{st(i+n)}]$

Phen.: **D2:** $[\{Cs(pp-fi)-Ph_i, Na(spp-fi)-Ph_i\}_{st-i}; \dots \{Cs(pp-fi)-Ph_{(i+n)}, Na(spp-fi)-Ph_{(i+n)}\}_{st-(i+n)}]$

Self: **D2:** $[\{Cs(pp-fi)Ph-Si, Na(pp-fi)Ph-S_i\}_{st-i}; \dots \{Cs(pp-fi)Ph-S(i+n), Na(pp-fi)Ph-S(i+n)\}_{st-(i+n)}]$

GIT: **D2:** $(\{S\{1...n\}, t\}i \dots \{S\{1...n\}, t\}z), \text{ or } (\{x\{1...n\}i, yi\} \dots \{x\{1...n\}z, yz\})$

Indeed, what may be seen from this singular description of all of these key scientific SROCS paradigms, is that it recognize the fact that all of these major (apparent) SROCS paradigms are computed simultaneously as different "co-occurring" 'x-y' pairs embedded within the same (single or multiple) USCF frame that is produced by the singular Universal Consciousness Principle (''); What this means is that the recognition of the singularity of this Universal Consciousness Principle as the sole "reality" which computes the "simultaneous co-occurrences" of all of these (particular) exhaustive hypothetical 'x-y' pairs series, and which also exists (solely) "in-between" any two such USCF's – forces us to transcend the 'narrow constraints' of the (current) Cartesian 'material-causal' theoretical framework (e.g., which assumes that any given 'y' entity (or phenomenon) is "caused" by its (direct or indirect) physical interaction/s with (an exhaustive hypothetical 'x' series); Instead, this singular Universal Consciousness Principle 'a-causal' computation asserts that it is the same singular Universal Consciousness Principle which computes- produces- retains- and evolves- all of these particular scientific (apparent) SROCS 'x-y' pairs series across a series of USCF's...

In other words, instead of the existence of any "real" material-causal relationship between any of these (particular SROCS) 'x→y' entities (e.g., Darwin's Natural Selection Principle's assumed 'material-causal' relationship between an organism's Environmental Factors, 'x', and own traits or behavior 'y'; or between any exhaustive hypothetical Genetic Factors and any given phenotypic behavior; or between Neuroscience's Psychophysical Problem of Human Consciousness' psychophysical stimulation, 'x', and Neural Activation, 'y'; or in fact between any hypothetical inductive or deductive Gödel-like SROCS 'x-y' factors); the CUFT's Universal Consciousness Principle offers an alternative singular (higher-ordered) computational mechanism which computes the "simultaneous co-occurrences" of any of these (exhaustive hypothetical) 'x-y' pairs' series – which are all produced- and embedded- within the Universal Consciousness Principle's computed USCF's frames... Indeed, the shift from the current 'material-causal' (Cartesian) scientific framework towards the Universal Consciousness Principle's singular computation of the "simultaneous co-occurrences" of all exhaustive hypothetical (inductive or deductive) 'x-y' pairs' series may lead the way for reformulating all of these key scientific SROCS paradigms (as well as any other hypothetical inductive or deductive 'x-y' series) within a basic "Universal Consciousness Principle Computational Program";

Essentially, such a '*Universal Consciousness Principle's Computational Program*' is based upon the foundations of the CUFT's (abovementioned) three postulates of the 'Duality Principle', the 'Computational Invariance' principle and the 'Universal Consciousness Principle' – all pointing at the fact that all empirically computable (inductive or deductive) 'x-y' relationships must necessarily be based upon the singular (conceptually higher-ordered) Universal Consciousness Principle which is solely responsible for the computation of the "simultaneous co-

occurrences" of all such (exhaustive hypothetical) inductive or deductive 'x-y' pairs series comprising the totality of the USCF's (single or multiple) frames.... Moreover, this singular Universal Consciousness Principle ('') was also shown to exist independently of any (secondary computational) 'physical properties' (e.g., of 'space', 'time', 'energy' and 'mass') and therefore constitute the only "reality" that exists invariantly (i.e., both as giving rise to the four 'phenomenal' physical properties and as existing solely "in-between" any two such subsequent USCF's frames).

In order to appreciate the full (potential) theoretical significance of such a 'Universal Consciousness Principle Computational Program' it may be worthwhile to reexamine Hilbert's famous 'Mathematical Program' to base Mathematics upon the foundations of Logic (e.g., and by extension also all of Science upon the foundations of Mathematics and Logic), and more specifically, to revisit 'Gödel's Incompleteness Theorem' (GIT) which delivered a critical blow to Hilbert's 'Mathematical Program'; It is a well-known that Hilbert's Mathematical Program sought to base Mathematics (e.g., and by extension also the rest of inductive and deductive Science) upon a logical foundation (e.g., of certain axiomatic definitions); It is also well known that Gödel's Incompleteness Theorem (GIT) has failed Hilbert's Mathematical Program due to its proof that there exists certain 'self-referential' logical-mathematical statements that cannot be determined as "true" or "false" (e.g., or logically 'consistent' or 'inconsistent') from within any hypothetical axiomatic logical-mathematical system... Previously (Bentwich, 2012c,d) it was suggested that perhaps scientific Gödel -like SROCS computational systems may in fact be constrained by the Duality Principle's (generalized) format, thus:

- i. SROCS: $PR\{x,y\} \rightarrow [y \text{ or 'not } y'] / di1 \dots di n$
- ii. SROCS $CR\{S,t\} \rightarrow [t \text{ or 'not } t'] / di1 \dots di n$

wherein it was shown that both inductive (i) and deductive (ii) SROCS scientific computational systems are necessarily constrained by the Duality Principle (e.g., as part of the broader CUFT). In other words, the Duality Principle's (generalized format) was shown to constrain all (exhaustive hypothetical) Gödel -like (inductive or deductive) scientific SROCS paradigms, thereby pointing at the existence of a singular (higher-ordered) Universal Consciousness Principle ('') which is solely capable of computing the "simultaneous co-occurrences" of any (exhaustive hypothetical) 'x-y' pairs series. It is important to note, however, that the conceptual computational constraint imposed upon all (Gödel -like) inductive or deductive scientific SROCS paradigms was shown to apply for all of those inductive or deductive (apparent) scientific SROCS paradigms – for which there is an empirically known (or 'knowable') 'x-y' pairs series results!

This latter assertion of the Duality Principle's (generalized proof) may be significant as it both narrows- and emphasized- the scope of the '*scientifically knowable domain*'; In other words, instead of the current 'materialistic-reductionistic' scientific framework which is anchored in a basic (inductive or deductive) SROCS computational format (see above) which inevitably leads to both 'logical inconsistency' and 'computational indeterminacy' that are contradicted by robust empirical findings (e.g., pertaining to the key scientific SROCS paradigms); The Duality Principle (e.g., as one of the postulates within the broader CUFT) proves that the only

means for computing the "simultaneous co-occurrences" of any (exhaustive hypothetical) 'x-y' pairs series is carried out by the singular (higher-ordered) Universal Consciousness Principle ('').... Moreover, the (generalized format of the) Duality Principle goes farther to state that for all other (exhaustive hypothetical) inductive or deductive computational SROCS paradigms – *for which there exists a proven empirical capacity to determine the values of any particular 'x-y' pairs (e.g., empirically "known" or "knowable" 'x-y' pairs results)*- any of these (hypothetical) scientific SROCS computations must be carried out by the CUFT's identified singular Universal Consciousness Principle ('')!

The (potential) significance of this generalized assertion made by the Computational Unified Field Theory's (CUFT): 'Duality Principle', 'Computational Invariance' principle and Universal Consciousness Principle ('') is twofold:

- a. First, it narrows down the scope of (inductive or deductive) determinable scientific phenomena – to only those (inductive or deductive) 'x-y' relationships for which there is an empirical capacity to determine their "simultaneously co-occurring" values; essentially the '*Universal Consciousness Principle's Computational Program*' anchors itself in the Duality Principle's focus on only those inductive or deductive 'x-y' relationship/s or phenomenon for which there is an empirically 'known' or 'knowable' capacity to determine these 'x-y' pairs values. It is perhaps important to note (in this context) that all of the 'other' inductive or deductive 'x-y' relationship/s which cannot be (empirically) known – "naturally" lie outside the scope of our human (scientific) knowledge (and therefore should not be included, anyway within the scope of Science)... Nevertheless, the strict limitation imposed by the '*Universal Consciousness Principle Computational Program*' – may indeed be significant, as it clearly defines the boundaries of "admissible scientific knowledge" to only that scientific knowledge which is based on empirically known or knowable results pertaining to the "simultaneous co-occurrences" of any 'x-y' relationship or phenomenon; (Needless to say that the strict insistence of the Universal Consciousness Computational Program upon dealing only with
- b. Second, based on this strict definition of Science as dealing solely with 'empirical knowable' (simultaneously co-occurring) 'x-y' relationship/s or phenomenon – the '*Universal Consciousness Computational Program*' may in fact offer a broader alternative to GIT (failing of Hilbert's 'Mathematical Program'); This is because once we accept the Universal Consciousness Principle's Computational Program's (above) strict 'empirical constraints', we are led to the Duality Principle's (generalized) conceptual computational proof that any (exhaustive hypothetical) inductive or deductive scientific SROCS 'x-y' relationship must be determined by the singular Universal Consciousness Principle ('') computation of the "simultaneous co-occurrences" of any (exhaustive hypothetical) 'x-y' pairs series. This means that instead of GIT assertion that it is not possible (in principle) to construct a consistent Logical-Mathematical System which will be capable of computing any mathematical (or scientific) claim or theorem, the Universal Consciousness Computational Program asserts that based on a strict definition of Science as dealing solely with empirically knowable 'x-y' relationship/s or phenomenon, we obtain a singular (higher-ordered) Universal Consciousness Principle which is solely responsible for computing the

"simultaneous co-occurrences" of any (exhaustive hypothetical) inductive or deductive 'x-y' pairs series (e.g., which were shown by the CUFT to comprise the totality of any single or multiple USCF's frames that are solely produced by this Universal Consciousness Principle). In that sense, it may be said that the Universal Consciousness Principle Computational Program points at the existence of the singular (higher-ordered) Universal Consciousness Principle as constraining- and producing- all inductive or deductive scientific relationship/s or phenomena (e.g., which was also shown earlier and previously to constitute the only "reality" which both produces all USCF's derived secondary computational 'physical' properties and also solely exists "in-between" any two such USCF's).

4. Theoretical ramifications of the universal consciousness principle

The discovery of the singular Universal Consciousness Principle (alongside its 'Universal Consciousness Computational Program') may bear a few significant theoretical ramifications:

1. **The Sole "Reality" of the Universal Consciousness Principle:** As shown above, all scientific (inductive and deductive) disciplines need to be reformulated based on the recognition that there exists only a singular (higher-ordered) Universal Consciousness Principle ('') which solely produces- sustains- evolves (and constrains) all (apparent) SROCS (inductive or deductive) 'x-y' relationships; Moreover, this Universal Consciousness Principle is recognized as the sole "reality" that both produces- sustains- and evolves- any of the apparent (four) 'physical' properties of 'space', 'time', 'energy' and 'mass', as well as exists independently of any such 'physical' properties – and is therefore recognized as the only singular "reality", whereas these apparent 'physical' properties are seen as merely 'phenomenal' (secondary computational) manifestations of this singular (higher-ordered) Universal Consciousness Principle "reality".
2. **The Transcendence of 'Material-Causality' by the Universal Consciousness Principle 'A-Causal' Computation:** As shown (above), the acceptance of the Universal Consciousness Principle ('') as the sole "reality" which both produces- (sustains- and evolves-) all USCF's (secondary computational) 'physical' properties, as well as exists independently "in-between" any (two subsequent) USCF's; (Alongside the Duality Principle's negation of any apparent SROCS' 'causal' relationships and the 'Computational Invariance' principle indication that only the 'computationally invariant' 'Universal Consciousness Principle' "really" exists whereas the secondary 'computationally variant' physical properties are only 'phenomenal'.) – point at the negation of any "real" material-causal ('x-y') relationships, but instead indicate that there can only exist a singular (higher-ordered) Universal Consciousness Principle 'a-causal' computation of the "simultaneous co-occurrences" of any exhaustive hypothetical inductive or deductive 'x-y' pairs' series... (As shown earlier, the strict negation of the existence of any "real" 'material-causal' 'x→y' relationships was evinced by the simple fact that according to the CUFT's model there cannot exist any "real" computationally variant 'physical' or 'material' property that can

"pass" across any two subsequent USCF's, but only the computationally invariant "real" Universal Consciousness Principle which exists singularly – as solely producing all apparent secondary computational 'physical' properties as well as existing independently "in-between" any two such subsequent USCF's frames.) Indeed, the need to replace all apparent 'material-causal' 'x-y' SROCS relationships by a singular (higher-ordered) Universal Consciousness Principle computation of the 'simultaneous co-occurrences' of all possible inductive or deductive 'x-y' pairs series was shown to apply to all of the key (apparent) scientific SROCS paradigms (including: Darwin's Natural Selection Principle and associated Genetic Encoding hypothesis, Neuroscience's Psychophysical Problem of human Consciousness as well as to all Gödel-like hypothetical inductive or deductive SROCS paradigms; what this implies is that for all of these apparent SROCS scientific paradigms the sole "reality" of the Universal Consciousness Principle forces us to transcend each of the (particular) 'material-causal' x-y relationships in favor of the Universal Consciousness Principle's singular computation of all (exhaustive hypothetical) 'x-y' pairs series; Thus, for example, instead of Darwin's current 'Natural Selection Principle' SROCS material-causality thesis, which assumes that it is the direct (or indirect) physical interaction between the organism and its Environmental Factors that causes that organism to 'survive' or be 'extinct', the adoption of the Universal Consciousness Principle (and Duality Principle) postulates brings about a recognition that there is only a singular (Universal Consciousness based) conceptually higher-ordered 'a-causal' computation of the "simultaneous co-occurrences" of an exhaustive hypothetical pairs series of 'organism' and 'Environmental Factors' (e.g., which are computed as part of the Universal Consciousness Principle's production of the series of USCF's frames).

3. **Possible Resolution of Physical (and Mathematical) Conundrums:** It is suggested that certain key Physical (and Mathematical) Conundrums including: Physics "dark energy", "dark matter" and "arrow of time" enigmas may be potentially resolved through the application of this singular 'Universal Consciousness Principle'; this is because according to the CUFT, all (four) 'physical' properties of 'space', 'time', 'energy' and 'mass' are (in reality) solely produced by the Universal Consciousness Principle (e.g., as secondary computational 'phenomenal' properties); Hence, the key enigma of "dark energy" and "dark matter" (e.g., the fact that based on the calculation of the totality of 'mass' and 'energy' in the observable cosmos the expansion of the universe should not be as rapid as is observed – which is currently interpreted as indicating that approximately 70-90% of the "energy" and "mass" in the universe in "dark", that is not yet observable) – may be explainable based on the CUFT's delineation of the Universal Consciousness Principle's (extremely rapid) computation of the series of USCF's. This is due to the fact that according to the Universal Consciousness Principle's (previously discovered: Bentwich, 2012a) 'Universal Computational Formula' the production of any "mass" or "energy" ("space" or "time") 'physical' properties – are entirely (and solely) produced through the Universal Consciousness Principle's computation of the degree of 'Consistency' (e.g., 'consistent' or 'inconsistent') across two other Computational Dimensions, i.e., 'Framework' ('frame' vs. 'object') and 'Locus' ('global' vs. 'local'): Thus, for instance it was shown that any "mass" measurement of any object in the universe is computed by the Universal Consciousness

Principle ('') as the degree of 'consistent-object' measurement (of that particular) object across a series of USCF frames.

Hence, by extension, the totality of the "mass" measured across the entire physical universe should be a measure of the degree of consistent-object/s values across a series of USCF's! Note, however, that based on the abovementioned recognition that in "reality" – only the Universal Consciousness Principle ('') "exists" (e.g., both as producing any of the USCF's derived four secondary computational 'physical' properties as well as existing independently "in-between" any two such USCF's frames), and therefore that only this Universal Consciousness Principle "really" produces all of the (apparent) "mass" and "energy" in the 'physical' universe (e.g., rather than the "energy" and "mass" in the 'physical' universe being "caused" by the "material" objects in the cosmos)... Hence, also all of the "energy" in the physical universe is solely produced by this (singular) Universal Consciousness Principle, e.g., as a measure of the degree of 'inconsistent-frame' (changes) of all of the objects (I the universe) across a series of USCF's frames. Therefore, according to the CUFT, the explanation of all of the "mass" and "energy" values observed in the 'physical' universe – should be solely attributed to the operation of the Universal Computational Principle, i.e., through its (extremely rapid) computation of the rapid series of USCF's (respective secondary computational measures of the abovementioned degree of 'consistent-object': "mass", or 'inconsistent-frame': "energy"). We therefore obtain that the (accelerated) rate of expansion of the physical universe – should be explained (according to the CUFT) based on the Universal Consciousness (extremely rapid) computation of the USCF's (e.g., which gives rise to the apparent secondary computational 'physical' measures of 'consistent-object': "mass" or 'inconsistent-frame': "energy"), rather than arise from any 'material-causal' effects of any (strictly hypothetical) "dark mass" or "dark energy"... (Once again, it may be worth pointing at the abovementioned conceptual computational proof that there cannot be any transference of any "physical" property (entity or effect etc.) across any (two subsequent) USCF's frames, but only the retention- or evolution- of all of the spatial pixels' "physical" properties by the singular Universal Consciousness Principle across the series of USCF's – which therefore also precludes the possibility of any "real" "material" effects exerted by any "dark" mass or energy on the expansion of the 'physical' universe across a series of USCF frames.)

Similarly, the "arrow of time" conundrum in modern Physics, e.g., which essentially points at the fact that according to the laws of Physics, there should not be any difference between the physical pathways of say the "breaking of a glass cup into a (thousand) small glass' pieces" and the "re-integration of these thousand glass' pieces into a unitary glass cup"! In other words, according to the strict laws of Physics, there should not be any preference for us seeing "glasses" break into a thousand pieces – over our seeing of the thousand pieces become "reintegrated" into whole glass cups (again), which is obviously contradicted by our (everyday) phenomenal experiences (as well as by our empirical scientific observations)... Hence, according to the current state of (quantum and relativistic) models of Physical reality – there is no reasonable explanation for this "arrow of time" apparent empirical "preference" for the "glass breaking into pieces" scenario over the "reintegration of the glass pieces" scenario...

However, it is suggested that according to one of the CUFT critical empirical predictions (previously outlined: Bentwich, 2012b) this "arrow of time" Physical conundrum may be resolved: This is because one (of three) critical empirical predictions of the CUFT assert the possibility of reversing any spatial-temporal sequence associated with any given 'electromagnetic spatial pixel' through the appropriate manipulation of that object's (or event's) electromagnetic spatial pixel values (across a series of USCF's): It was thus indicated that if we were to accurately record the spatial electromagnetic pixels' values of any particular object (e.g., such as an amoeba or any other living organism for instance) across a series of USCF's frames (e.g., or even through a certain sampling from a series of USCF's), and to the extent that we could appropriately manipulate these various electromagnetic spatial pixels' values in such a manner which allows us to reproduce that objects' electromagnetic spatial pixels' values (across the measured series of USCF's) – in the reversed spatial-temporal sequence, then it may be possible to reverse the "flow of time" (e.g., spatial-temporal electromagnetic pixels' sequence). In this way it should be possible (according to one of the critical predictions of the CUFT) to actually "reverse" the "arrow of time" (e.g., at least for particular object/s or event/s: such as for instance, bring about a situation in which a "broken glass cup may in fact be reintegrated" ...)

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