**EXPLANATORY NOTES**

One could try to sustain the theory that as man became more and more intellectualized (and electronically mechanized) the residue ‘extrasensory faculties’, which he used to escape from the physical dangers of a hostile environment, became weaker and weaker.

One could maintain that the crisis of human extrasensory perception derives from the birth (probably 150,000 years ago) of phonetic language (possibly a mutation in the Neanderthal FOXP2 gene) 1) an event which is generally considered as one of the decisive moments in the evolution of our central nervous system. This genetic evolution, ultimately combined with a cultural evolution (memes), led to human civilization.

Yet, the statement: ‘In the beginning was the Word’ cannot claim to be anthropologically correct (the statement only has significance if ‘Word’ is used in the theological sense of ‘Logos’) since surely ‘shape’, ‘perception of metaphor’ 2), and possibly ‘music’ are antecedent to ‘WORD’! 3)

However, the magical and efficient operation of transforming and organizing the substance of a ‘reality’, or of an object, following the process of abstract and symbolic thought, into sounds or a series of sounds, has been an expensive luxury. It inevitably led to the creation of a barrier between the individual and reality, and between human beings’ communion with a mysterious multi-dimensional universe. At time of writing (2012) ‘String theory’ (if we have, even if only imperfectly, understood the ‘state-of-the-art’ correctly, and ‘Loop Quantum Gravity theory’ notwithstanding) requires at least ten or 11 dimensions - Bosonic String theory requires an incredible 26!

Our universe (possibly just one of an infinite number of universes), or, if you prefer, that part or ‘bubble’ of the ‘hyperspace’ in which we live, would appear to be (starting about 13.8 billion years ago) composed of energy, which variously manifests itself to us in the form of ‘quasars’, ‘pulsars’, ‘supernovas’, ‘brown dwarfs’, ‘white dwarfs’, ‘neutrinos’ 4), ‘quarks’,’ cosmic microvawes background’, ‘antimatter’, ‘black holes’, ‘gravitational waves’, ‘gravitational lenses’ 5), ‘vacuum energy’, ‘a cosmological constant’, ‘dark matter’ (‘WIMPS’?), ‘dark energy’, ‘negative-matter’ (if it exists at all), ‘gamma rays’, ‘x-rays’, ‘gravity’ 6), etc. and conceivably (highly probably?!), ‘morphic fields’ and ‘morphic resonance’ 7) as applicable to the more complex combinations and agglomerations of atoms which have combined into living cells.

At times, these agglomerations are conscious expressions (humanity with its various communicational capacities) of an awe-inspiring ‘reality’ which appears even weirder, vaster, more incomprehensible, warped, absurd, bizarre and ‘entangled’ 8) than quantum theory 9) would seem to suggest. ‘String theory’ and/or the ‘Branes hypothesis’ are attempting to ‘unravel’ 10) this peculiar reality, and ‘Information theory’ (a Generative Science) is suggesting further astonishing ‘truths’. Furthermore, quantum biology is discovering that quantum mechanics have an effect on biology too. It is, apparently, a quantum entanglement that directs migrating birds through Earth’s magnetic field, and quantum absorption of energy - ‘inelastic electron tunnelling’ - that allows molecules to be perceived as smells. Furthermore this quantum tunnelling in biology is also involved in the enormous acceleration (trillion fold) of the vital chemical reactions in photosynthesis and enzymes.

**Lorenzo has long had a hunch that the very exeptionality of human consciousness derives from the very unique (compard to other living creatures) way that human neurology, reason and thought interact with the bizarre quantum world. In other words, quanta, after having been strumental in the creation of the living cell, play along and constantly interact, in unexpected ways, with the human psiche and soma as it moves through spacetime.**

As confusing as all the above discourses may be, at least some solutions to a quest for answers would present themselves if we knew the ‘general situation’ ‘prior to’ the Big Bang (which could also, perhaps, be defined as the result of a massive fluctuation in a pre existing condition of a pre existing expanding universe). The consensus seems to be that there was ‘nothing’ but what is nothing? Throughout history there have been innumerable attempts to define this: ‘complete void’, ‘empty space’, or ‘total vacuum’. Is the question even a valid one now that we know (since the 1960s) that time itself began with the Big Bang? As there were no moments of time before this, so there was never a ‘time’ when nothingness prevailed. As British philosopher Sir A J Ayer said, ‘Clearly no event can be prior to all events. Because it is a member of the class of all events and must be included in it, and therefore can’t be prior to it.’ Adolf Grünbaum, the University of Pittsburgh philosopher, makes the same point: ‘Although the universe is finite, it has always existed if “always” means “at all instants of time”.’

However, such objections may be merely semantic, and the question valid when contemplating the kind of system which allows Big Bangs to occur. According to Russian physicist Andrei Linde of Stanford University, 100,000th of a gram of matter is ‘enough to create a small chunk of vacuum that blows up into the billions and billions of galaxies we see around us,’ and someone in a civilization not much more advanced that our own could cook up a universe in a laboratory. The ‘oscillating universe’ model, first proposed by Alexander Friedmann in 1920, postulates that our universe emerged out of the collapse of another. Sir Roger Penrose, in symbiosis with Stephen Hawking in the 1960s, “proved” that the expansion of the universe out of the Big Bang must have been a precise reversal of the collapse of a star into a black hole (he was given a knighthood in 1994 for this and other achievements). ‘New inflationary cosmology’ predicts that Big Bangs should be fairly routine occurrences - in which case our universe bubbled out of the space-time of another, and is just an infinitesimal part of an ever-reproducing ‘multiverse’.

(Lorenzo would like to hypothesize that, if after a very long period of accelerating expansion any one universe should start re-contracting at an accelerated pace and eventually collapse, it would do so into such a miniscule point that it would be the origin of a big bang which would create, on the spot, a new universe with different dimensions of its own. Therefore, the fourth dimension of a universe would be only one ‘time’ within the ‘times’ of the multiverse.This hypothesis though certainly does not, at present, seem to be applicable to our universe and the ever accelerating speed of its expansion!)

Even if you come down alongside Bertrand Russell: ‘the universe is just there, and that is all,’ that still leaves the question - who or what invented the laws by which it operates? The physical fields, particles and forces saturating space-time are governed by a set of laws (which may be chaotic, but which are laws nonetheless). Why that set in particular? (Does every separate universe in the ‘multiverse’ have a different set of laws?) And while Divinity may be perfect, these laws seem somewhat woolly and wonky and not perfect at all in this section of the ‘multiverse’!

You may, on the other hand, believe (perhaps imperfectly understanding Lee Smolin) that the above set of laws sprang up over time (starting “shortly after” the Big Bang) to accommodate the evolving predominant exigencies of the ‘matter in hand’. But who, or what, produced the ‘system’ and ‘meta law’ which governs how the laws evolve?

David Deutsch, the Oxford University theoretical physicist, takes speculation one fascinating step further suggesting that a quantum event can have different (and /or multiple) outcomes and that the physical laws that spring from it are determined, at the quantum level, by what is and what is not possible. Constructor theory.

This whole quest is a bit like a dog trying to catch its own tail - perhaps that’s why dog is god written backwards?! (see ‘In the Eye of the BeeHolder’ p.63).

On 22nd July, 2012, the world received confirmation from the CERN’s ‘Large Hadron Collider’ in Geneva that we do indeed ‘have’ what in all probability is the Higgs boson. This boson probably has ‘sisters’ i.e. there are various Higgs bosons. It would be wonderful if, as an outcome of this discovery, we find evidence of extra dimensions...

However, according to one reliable source, and despite the Higgs boson, 95.1% of the universe remains a mystery to us, classified as ‘dark energy’ (71% - again, if it exists at all) and ‘dark matter’ (24.1%). Only the 4.9% remaining is actual atoms.11) If, thanks to mathematicians and astrophysicists, we do come to a ‘comprehension’ of ‘dark matter’ and ‘dark energy’, and through the application of the ‘Standard Model’ (16+1) we eventually ‘understand’ ‘Supersymmetry’ (if it exists) we may yet come to explain how the universe began by a ‘random quantum fluctuation in pre-existing nothingness’. Further, we may also come to know how ‘matter’ took predominance over ‘antimatter’ without each cancelling the other out.

Presumably, though, (unless you think that such speculation, far too close to the western method of thinking, is a total waste of time - and you may indeed be right!) we would still be stuck with the greatest mind-blowing, “knotty” question of them all:

WHY ? (Y ?) :

But then again: WHY NOT ? (Y-knot ?!)

So, within the framework of this mysterious expanding (and eventually contracting?) universe, Phonetic Language (one of humanity’s informational exchange capacities) has, as we have suggested above, made interpersonal communication far easier but, at the same time, has potentially limited our horizons.

Speaking of language, and not of music, nor of metaphysical symbolism, we come to the crux of the problem: while accepting Noam Chomsky’s inspired ‘specific hypothesis’ of ‘generative grammar’ (another outstanding Generative Science) we also have to consider, on a more mundane level, that sounds, designated by individual social conventions, become transformed into the graphic signs corresponding to such sounds. Thus, with the Greek, Latin, Cyrillic and Arabic alphabets, representing, as they do, the great majority of graphic literary expression of sounds throughout the ages, we have, all too willingly, become the (admittedly creative) slaves to the assembly line of linear alphabets.

On the other hand, in Ancient Egyptian, in Oriental and other languages based on hieroglyphics, pictograms or ideograms, a sound combined with symbols represents an actual object, or situation connected with an object. An association of symbols may also be used phonetically to obtain a series of sounds that describe a third object or situation, not necessarily connected with the original one. This process activates unusual areas of the brain, and creates a difficulty for the western mind. Thus, Marshall McLuhan was certainly not in error when he referred to Chinese as an ‘audio-tactile’ language rather than a ‘visual’ one.

In September 2012, the French neuroscientist Stanislas Dehaene presented his discovery that specific areas of the brain are activated when a mathematician looks at a mathematical formula, and that these areas are not activated when a non-mathematician looks at the same formula. This discovery is important because it appears to contradict Noam Chomsky’s theory that a fundamental aspect of language evolution is the brain’s processing of symbols. Chomsky believes that the mind stores symbols one inside another, and that to form language it deciphers these by proceeding from the inside to the outside. Mathematical formulae are worked out using the same process - but if Dehaene is correct, the areas of the brain used in these calculations are not the same as those used in linguistics. As far as Dehaene is concerned, there isn’t a single area of the brain that processes both symbols and words - language and mathematics are mutually dissociated. As he says, ‘It is very important to emphasize that the areas used in processing language do not contribute at all to those used in processing mathematical formulae.’

It is interesting to note here that Einstein reported that he didn’t think in words but in images.

... And also that Mozart saw colours when he heard musical notes.

But perhaps it is music that connects language and symbol. Bach made use of formal mathematical patterns when he composed his organ fugues, and the ‘Mozart Effect’ proposes that the brain uses the same areas when listening to music as when working out spatial-temporal problems. Of course, when we respond to music and poetry we do so with our whole selves rather than being aware of what is going on inside our brains. But scientists researching the overlap between music and mathematics in terms of brain function, and those researching the overlap between music and language, have separately found that almost identical parts of the brain are activated when listening to music as when engaged in mathematical reasoning, and other identical parts for processing melodic and linguistic phrases. This may be why prevalence of perfect pitch is much higher for speakers of tonal languages (including all Chinese languages) than for those who speak European non-tonal languages. (See Tom Paulin’s quotation on page 25!)

These theories remain controversial, and the artist is fully aware of this. Nevertheless, his work must be viewed in this phonetic, semantic, epistemic and linguistic context: phrases, sounds and concepts cease to be, totally or in part, the alphabetic symbols of the sounds but are transformed into sculptural objects or graphic representations of phonetic vibrations.

These artefacts go beyond the jocular aspect of Marcel Duchamp or Man Ray’s word games and the theories of visual poetry, to combine a new abstract surrealism with pop art, conceptual and postmodern art.

Furthermore, the works are aesthetically very pleasing, are executed with great craftsmanship (which includes extensive use of ‘LED’ illumination) and display a great sense of humour.

This artist has read up on all the rational and reasoned psychological ‘explanations’ on the subject of humour, yet remains convinced that the less a joke (being an intuition, and an art form in itself) is ‘explained’ the merrier (!) and the better it is for everybody. He fully agrees with Albert Einstein’s dictum: ’**Reason should be the servant of intuition. We have created a society which honors the servant and forgets the master**.’ Humour is far too important to be ‘explained’: a degree of spontaneity and mystery should always remain. How are you going to keep a mystery if you try to explain it?! René Magritte got the point when giving unfathomable tongue in cheek and absurdly unrelated titles to his paintings so as to:

**‘enhance the mystery of existence’**

One way in which Lorenzo’s work displays the artist’s sense of humour is his skillful use of the pun, through which he mocks not only vacuity in much contemporary art, popular attitudes towards scientific ‘certitudes’ and intellectual hubris but manages, in the process, to mock himself too! He knows very well the difference between homonym, homophone and assonance, and uses them to great effect. He says, however, that puns are not something he consciously thinks about, but rather that pop into his head spontaneously when he hears a sound or a word which produce an image in his mind. Puns are not everybody’s favorite idea of humour, but the artist sides with Shakespeare, Carroll, Rushdie and Nobokov who all made use of them. Through the use of visual puns, the Artist is instantly putting the left, masculine side of the brain (which processes language) in touch with the right, feminine side of the brain (which elaborates images).

In fact, Vladimir Nabokov wrote that **‘the pun is mightier than the word’**. The artist Lorenzo agrees that people who cannot play with words cannot properly work with them either. (‘A man who would call a spade a spade should be compelled to use one.’ Oscar Wilde.) It is a fact that few people are able to play with phonetics, and this is the result of too much emphasis being placed today on academic acquisition of consequential facts. The modern human mind (the digital brain), tired of consequential, yes/no, binary logic (‘bits’), leaps to new revelations and intuitions through the use of puns.

Interestingly, take this too far and ‘that way madness lies’. Edward Hoagland, in his book ‘Learning to Eat Soup’ tells of how James Joyce sought advice from Carl Jung when he began to suspect that his daughter was mentally ill. After a few sessions with her, Jung told her father she was schizophrenic. A telltale sign was her obsessive tendency to make puns, many of which were quite clever. Joyce, alarmed, confessed that he, too, enjoyed the art of punning. ‘You are a deep sea diver,’ Jung replied. ‘She is drowning.’

Nietzsche had a mental breakdown in Turin 1889, during which he flung his arms round the neck of a horse to protect it from being whipped. In one report of the incident he is said to have shouted, ‘Je suis le tyran de Turin’ (‘I am the tyrant of Turin’) before collapsing to the ground.

Despite this (or perhaps because of it?) the pun is always the more immediate form of expression, since puns can instantly condense an idea into an image. You will remember no doubt that Henri Cartier-Bresson asserted, even if referring to matters in a different context, that a single image always expresses the essence of things with far greater power than mere words. Through use of the pun, the West is integrating with the East: we are becoming more ‘audio-tactile’.

Therefore, if you think about it, **puns are much closer to the quantum world than to classical logic** where a statement is either true or false: with quanta the binary “Yes/No” is replaced by “Yes/No or Both” leaving ground open for a third solution.Lorenzo would prefer a surrealist paradoxical fourth solution: “None of the Three”.

The object-word-idea-phrase is important, and man is too often judged by the single words he utters or writes, but not often enough by the images he sees in his mind and subsequently reproduces. Capturing out of the ‘wild blue yonder’ an image of a rhyme tied to an abstract reason.

If philosophy can be applied to this kind of artist, couldn’t we call him a ‘neurophysiological operator’ who ‘constructs’ (Immanuel Kant) and ‘de-constructs’ (Friedrich Hegel and Jacques Derrida) both at the same time? Lorenzo would like to be a fan of Baruch Spinoza or Emanuele Severino, but finds ‘non-philosophers’ such as Karl Popper, Richard Rorty and Buckminster Fuller much more ‘accessible’. (Incidentally, Buckminster Fuller’s favorite pun: ‘Why does a train driver wear small mittens?’...... Answer: ‘Because he needs small pause (paws!) for station identification.’)

Lorenzo, who has a layman’s interest in many disciplines, is highly eclectic in everyday life and defies categorization. Unsurprisingly, artistically speaking he doesn’t fall into any established classification’ either. Furthermore, again not unexpectedly, he finds that: ‘Perception, Intuition and Humour are by far the three most significant activities of the human brain’12). His works are a highly personal, literary romp in the quest for the meaning of human consciousness. Lorenzo considers him-self an ‘ironical theorist’: he does not completely believe, nor fully understand, what, in utter bewilderment, he conscientiously, emphatically, joyfully and self-effacingly asserts.

1) Svante Pääbo, Max Planck Institute, Germany

2) Gerald M. Edelman

3) Robin Dunbar

4) Wolfgang Pauli can now rest in peace in the knowledge that his neutrinos do not, after all, travel faster than the speed of light !!!

5) Orest Khvolson, Albert Einstein and Richard Ellis

6) Though man has successfully landed on the moon following gravitational laws as mathematically described by Isaac Newton we now find that gravity is, probably, not a fundamental force at all but an emergent phenomenon that is merely a by-product of other quantum forces. Prof. Anthony Lasemby of Cavendish Laboratory

7) Rupert Sheldrake

8) Albert Einstein’s ‘Spooky action at a distance’ (In turn ‘spooked’ by Roger Penrose’s ‘quanglement’?)

9) Thought up by Max Planck and co-pioneered by Richard Feynman, that ‘bongo playing half genius half buffoon’, Nobel Prize 1965.

10) Roger Penrose, among others, maintains that the present-day laws of quantum mechanics are in need of fundamental change; he also has strong reservations about many aspects of the current approach to the String Theory programme. (‘The Road to Reality’, 2005) However, in 2003, the Penrose 1967 ‘Twistor Theory’ was elaborated by Edward Witten, the Princeton researcher in ‘Superstring Theory’, to form a highly original hypothesis.

11) Updated 2013 figures deducible from data collected by the European Space Agency ‘Planck’ satellite.
12) Paraphrasing Edward De Bono.