Essential Numbers
and a note on worldviews

Philosophical essay
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Essential Numbers

Since 2003 I have had the point of view that clear thought
requires a different attitude to infinity questions in
whole number and decimal number thinking than that which
has been the mainstream current of socalled "mathematics"
in the 20th century since Georg Cantor.

Clear thought--a concept which Cambridge online dictionary
defines as the core of the concept of rationality--is
related to the notion of clear ideas. And it is a clear
idea that when infinitely many numbers are allowed to grow
infinitely, infinite-sized numbers arise. This is easy to
show.

As a result, it is possible to seek to define limited
numbers as a peculiarity on a background of that which
seems more natural, namely infinite sets involving
infinite-sized numbers. For instance, one can define,
perhaps, a finite numbers a particular form of interaction
between two numbers of infinite size.

These natural foundation of infinite-sized numbers I have
called "essence numbers".

A slightly different point of view can be erected on the
probability that the notion of mind transcend any one
person's mind, and that which is most meaningful to mind
in some general and abstract sense, is indeed most
meaningful in itself--and can give rise to clear ideas and
clear thoughts about what numbers, in essence, are all

about.

And what is meaningful to human minds, and thus, possibly
to mind in general, is the idea of the number that is not
only finite but limited within to around 7 or 8 or
possibly 9 digits. This is the 32-bit number domain, which
goes into billions but not further, and a whole
programming language can be devoted to, so to speak, the
structure of 32-bit numbers, the G15 PMN language I have
made is a particularly good case in point.

A number series like 1, 1, 1 and onwards can be seen, of
course, to be something like equivalent to an algorithm
in this language, eg, like,

showdigits=
LL:1
   i1
   nn
   q1
LO.

[This is slightly stylized in how it is written; the real
G15 PMN doesn't use indents nor capital letters this way.]

While a number series up to about two billion, starting
with 2 and going up to 4, 6, 8 and onwards, can be seen to
be equivalent, more or less, to an algorithm rather like
this:

showthis=
LL:1000000000
   i1
   2
   mm
   nn
LO.

Indeed these algorithms can be laid out as streams of
numbers themselves, using for instance the easy and
obvious ASCII 7-bit scheme in which capital A is 65 and
the uppercase is found by adding 32, and 48 is zero and
some other characters like * is 42.

The Thesis of Essential Numbers

To summarize a somewhat different point of view--where
the exploration under the heading of 'essence numbers'
was a playful act of perception to get away from the
cantorian dogma of so-called 'natural numbers' and the
distinction to so-called 'real numbers'--and all that--
we hereby introduce the idea of 'essential numbers'.

The essential numbers are the finite 32-bit numbers,
signed, from about minus two billion to about plus two
billion. These are sometimes used without an obvious
reference, or they may refer to an algorithm like one in
G15 PMN, when they are in sequence. A sequence of them
can be again numbered within the 32-bit region. Also, a
sequence of sequences can be numbered in this way, at
several levels upwards, or sidewards, or 'in depth',
depending on perspective, but the number of levels is
again with 32-bit.

These numbers are, in a way, static. But they are shaped
by Mind, and by "Mind" we do not refer to any person's
particular mind, but rather assume that Mind does exist as
a primary infinite. Mind carries the 32-bit numbers
insofar as they are meaningful.
   Furthermore, Mind may perceive relationships between the
numbers, ie, as within a sequence of numbers or relative
to another sequence of numbers, and by the act of
perception, and attention-giving, there is a movement in
Mind and the movement involves change of numbers. The

word 'infinite' as regards number simply refer to a
change, to movement.

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APPLICATION OF THE JUST-MENTIONED THOUGHT, OR INSIGHT

For those acquainted with various ways of looking at
matter as something emanating from a more universal sort
of mind, whether it is tied up to a religious description
or in a more vague pantheistic sense, there is something
to be gathered from contemplating over Plato's ideas of
eternal forms--a sense of Light In Itself--and from
contemplating over the classical Western philosopher,
Bishop Berkeley, when he describes the world as imagined
by the mind of the ultimate being. This echoes many
teachings throughout the world and Indian thinkers are
known to have a number of creation myths of this sort.

This is perhaps most properly called--to go along with
Aristotle, or how Aristotle's text were edited--Meta-
physics, because, as he says, it comes 'after physics'--
meta ta physica.
   One reflects over the world in its content, but steps
back and reflects on the reflection. Do we reach a view,
as some Greeks before Plato did, that the world in some
sense 'is' numbers?

Now an application of the view of essential numbers as
described here is this: the world is this sort of numbers.

Its change is as suggested, the mind-processes surrounding these. They provide contexts for the interpretation of each other, like G15 PMN algorithms for instance can interact with elements outside of these algorithms that in principle can be such algorithms. The empirically grasped complexity of this universe from the point of view of the human being with his or her measuring instruments in one spot of the universe may be accurate or inaccurate; may be interpreted slightly correctly or extremely incorrectly, but it does seem right to say that the complexity of existence in toto is enormous. Too enormous for 32-bit? Not when we talk sequences of sequences, limited in upper limits and in terms of quantity of levels by 32-bit.

An example is how a perfectly normal set of 32-bit algorithms can encode character strings of numbers that are eg, in a sense, 60 bit, or slightly more, in such a way as to do a form of calculation upon them and store the results back and show them as a sort of numbers which go beyond the 32-bit range. That is to say, 32-bit is not just 32-bit: because the interplay equates to more bits.

That is not to say that 32-bit is arbitrary. It is not, when mind is primary, meaning that meaning is primary. And at no point do we say a 'limitless' sequence or suggest 'infinitely many levels' to physical creation. We say, there are limits, indeed jumps, indeed whole number oriented jumps, and at some level something of this is briefly and vaguely hinted at (but only hinted at) in the findings associated with what in the 20th century was termed "quantum physics".

This is not a deterministic universe picture: perhaps because the numbers are seen to express perceptions and perceptions are by nature alive in a mind; which means there is mind; so the universe seen this way is alive; the numbers are merely a clue to an understanding of metaphysics (and for a more concrete picture, see the

super-model theory of this author).

Yet when mind decides, naturally, it can be as
deterministic as Spinoza wanted; what you are, is in a
chapter in a book already written: quite possibly, do you
object? But it may be that in less objection, there is
more fun in that chapter: and that by not quite
understanding this, you are indeed playing well the role
in that chapter.

That suggests the following view: to think about
determinism versus indeterminism in reality is akin to
thinking about finiteness versus infinitudes as for
collections, and these thinking processes, like other
strong things in life, should be taken in moderate doses
and then only perhaps once a month or so :)

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FOR THOSE SO INCLINED:
A VAGUELY COPTIC CHRISTIAN RENDERING

In this, the third part of this introduction I've written
to essential numbers, I seek to meet those who wish to

engage in a more religious interpretation, or, more precisely, 'rendering', of essential numbers.

The view of Bishop Berkeley is taken for granted in its most general form, that is number 1 proposal in this regard. The mind of God has something in it, and the manifest existence is part of what is in the mind of God and that is the only existence it has.

By 'vaguely coptic christian' I mean the following view, which resonates with the early coptic christians as I read their viewpoints, although this sort of view was more or less dissolved as the centuries went by: The mind of God, whose content lends existence to the universe, can of course entertain such content as contain an image of itself, projected into this universe and can, as it were, step into this projection and in that way physically be inside creation in a unique way. The easy way of putting this thought is that the 'flesh' of God is other than the flesh of other beings; and that is a coptic view that was in early days of Christian church history was deemed 'heretic' by other branches. These other branches, which included the so-called 'catholic' one, held that the flesh of the manifest God was that of a normal human being; but the copts claimed this flesh to be God, not human.

All this sort of religious philosophical view is, of course, rather meaningless to those who prefer a more atheistic take on the universe; however the atheistic take on the universe may be false and it may be of value for those who believe in the religion of atheism to consider the crossing perspective, namely, that atheism is a false religious belief and that there are other beliefs that have greater truth value.

The contribution of some of those who have claimed adherence to the atheistic religion is that they have

pursued such as number understanding, and looked at abstract principles as a wa to understand the concrete. We shall now do the same, but without adherring to the religion of atheism. That could provide a bridge for those who believe in the religion of atheism to shift religion to something perhaps more true, in the opinion of this writer.

Firstly, let us consider the idea that numbers, whole numbers, of the meaning 32-bit kind--naturally created by multiplying 2 with 2 up to 31 or 32 times--are imagined by a universal sort of Mind. That is sounding much like an abstract principle; and yet it begs the question, Whose Mind? The question suggests the possibility of an ultimate being. There are other approaches to trying to discuss this question, but that is clearly one of the possibilities.

It is typical for any general description of Mind to include that of self-reference. In other words, it is not unlikely that, in case there is a being whose mind is, so to speak, The Mind, that this being visualizes itself, and have other forms of awareness, self-consciousness, self-reference. It is further likely, given that this Mind engages in 32-bit number visualization, that at least some of these visualizations (and other forms of imagination) are given to just such self-reference.

Self-reference in a living mind is inevitably something infinite. A 32-bit number, and any 32-bit quantity of 32-bit numbers, up to 32-bit in quantity of levels, are still finite, although the complexity is terrific. It is therefore fairly clear that self-reference on behalf of an infinite Mind doing finite visualization cannot be complete within this finite visualization. There will always be something incomplete about it.

This incompleteness in the finite self-reference aspect
of the otherwise infinitely self-referring ultimate Mind
suggests a sense of experimentation, creativity, even
striving; thus a sense of intent--and in super-model
theory we have suggested such a similar-sounding general
principle of movement, the PMW, or Principle of a tendency
of Movement towards Wholeness. This wholeness can be
thought of as for example the tendency of figuring out new
ways in which something 32-bit can mirror something
essentially infinite.

When such a being, whose nature is infinite, whose mind is
infinite, and whose mind contains structures involving
making 32-bit numbers, these numbers, or some aspects of
them, becomes the multiverse in its many levels, and a
branch of this is our universe: this is a view that
arguably is compatible with every empirical observation
known to modern science, and it is not an overly complex
proposition in its most general form. Only by looking away
from the complexity of the whole set of observations of
science can one 'narrow down' something to a cut'n'dried
theory-bit such as the Bohr interpretation of quantum
theory, or the Einstein interpretation of light constancy
phenomena. It is in widening the scope that the quest for
simplicity challenges the earlier ideas of simplicity, and
that is how the super-model theory was erected, and as a
help on its way, the Implicate Order philosophy and theory
by David Bohm provided useful insights.

Back to the coptic view: here, the being, whose endavour
to make a universe, does so by 32-bit work, so to speak:
numbers, algorithms, representations of numbers by other
numbers, by other algorithms, in a way that begins to
yield visualizations and other forms of imagination with
semi-stable components; some aspects of some of these
components look to manifest humans as 'natural laws'. And
the coptic view involves that there is an injection, so

to speak, into these numbers of the being who is behind
them, investing some of these numbers with such
significance that they are 'a different sort of flesh'.

In any span of mind in which there is an intention, and
thus an excitement, an impulse to bridge this excitement,
there is a tension, and an essential tension, as has been
intuited in many religious approaches, not in the least
the Greek ones, is that of sexuality. Thus, for instance,
Zeus becomes lusty on creatures in his own creation and
transforms himself constantly to seduce them; and this
doesn't mean Zeus has lost his head nor his fairness nor
his goodness; he can re-attain at any time to the
position of the fair but stern judge with the staff as
King of Gods. And with him are the Muses who give voice
to the beings of his creation. Being woven as part of many
myths, poems, fairy tales, there are many spins on this
sort of story, but it is rather clear that Zeus--the very
word leading to the Latin 'Deus'--became rather divided up
by the so-called 'catholic' church into one spiritual and
fair being, and one non-fair sexual being. Yet the coptic
view has something that goes a bit more back to the origin
idea of Zeus, again, and says:

The 'flesh' of the being who is ultimate, and who is
amongst the humans, is holy: just like Zeus, being the
source, must be regarded as more holy than anything else,
walks among others in his own creation when he feels like
it and becomes fascinated with young females of great
beauty and charm. The fact that he has in a way created
them all doesn't prevent him from feeling a challenge in
seducing them, reaching out to them: he goes as far as to
transform himself even into animals on occasion, in order
to achieve this.

One may ask, how can a creator become infatuated with some
bits of own creation,--how come this creator isn't

entirely 'beyond' and 'disinterested' in this creation?
But, as we saw, that has--and I believe this will appeal
to the person who is migrating from atheism into a more
meaningful understanding of existence and cosmos, more in
tune with the subtleties of the physical phenomena
encountered, and more in tune with the deeper intuitions I
believe lies in every human being--an explanation in that
the self-reference of the ultimate being is never fully
met in the partial self-reference of the finite, 32-bit
oriented creation. This being partial means that there are
steadily new challenges of self-reference, and these
challenges can transform themselves into sexual excitement
feelings in which the concept of 'seeking fulfilment', ie,
orgasmic fulfilment, becomes natural.

Those so inclined may see in this something of the beyond-
gender aspect of the ultimate being, called Zeus or
something else: namely, that this being, perhaps casting
itself more as male than female, looks to female to find a
more complete sense of self-reference 'again'. And indeed,
the word "religion", or "re-ligion", involves a sort of
perceiving or reading in between the lines "all over
again", with the core word "re-" as in "repetition".

For those who wish to explore whole finite numbers up to
about a billion or two--the 32-bit numbers, signed, in
order to come across great beauty and art in themselves,
but who do not know how to start: start by looking into
Fibonacci numbers, 3, 5, 8, 13, 21, 34 and such; and
Prime numbers, 3, 5, 7, 11, 13, 17, 19, 23, 29 and such.
Look at the amazing structures that arises from
considering the deeper implications of these whole numbers
that are as embedded inside other whole numbers once we
apply merely addition and substraction, multiplication and
simple division on them. Work also with algorithms doing
simple things with these essential numbers. That makes an
artist of you, when you melt it with living, physical,

sexual/esthetical experience and expression.

The atheist may still ask, well, then, what about causes
and effects? Surely these are real?
  Nay, they are but correlations, on the edges of numbers,
a map of some patterns that happen to be flowing through
your senses and minds right now.
  What is real is distance-transcending unfolding patterns
of essential numbers at too many levels for the human
mortal mind to comprehend in detail, but with the
possiibility of comprehending them in general. The human
story is infinite because it is God's own story. And cause
and effect are not, except tokens pointing at times
illusory, at times more correctly, into this mind, which
is the source of all minds, souls, hearts, and it is this
source, and that aspect of each mortal being that is near
this source, that is immortal. In that way, we come from
general principles to a concrete religious understanding
in which souls are immortal and real but bodies transient,
except the coptically understood "body of God"; and in
which there is some free-wheeling reality to reincarnation
flowing naturally from this complex understanding of
reality.

More about that other places.

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