Non-Singularity, Sense and the Universe as Manifestation of Sense

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1. WHAT IS THE UNIVERSE : Non-singularity . Singularity (non-existence) is logically not. . The universe consists of abstraction (and nothing else) . Physical constants can't be other than exactly tailored . The world is a sense machine . The Fourth-Bag-Problem . Perception is extremely blinding out

2. WHAT IS WRONG WITH TODAY'S SCIENCE OF THE UNIVERSE : The universe has no size . The origin of the universe is not a location . 'Dark energy' wouldn't effect anything . Big Voids and SMBlack Holes = source and sink . The light of the universe isn't observable . Most galaxies move a billion times faster than light . Conceptually misguided space missions . Into limitless divergence

I. WHAT IS THE UNIVERSE
(Part II is more fun to read)

1.1 Non-singularity

To describe more correctly what the universe is the known *anthropic principle* has to be inverted.
The observation has to be of the kind that allows the universe to be one the observation can remain in.

The common anthropic principle sets conditions for the universe.
This anthropic principle

- sets conditions for the observation,
- declares the universe depends on the observation.

Yes, this principle is quite derogatory for the human being. One can't say anymore: I have my head on straight. I see what I see.
The condition that is set for the observation is *filtering*.

What we see is not the big picture. What we see is widely filtered. – Not emotionally ("we see what we want to see") – this filter is not about psychology, it is about epistemology.

And what is the 'big picture' we can't see?
(More precisely: what is there but not in this universe?)

There is something that belongs not to our tailored universe, that is limitless bigger than any universe.
It is the so-called *chaos*, the next-to-nothing-ness with the capability of spawning everything (infinite possible universes).
'Next to nothing' sounds small but considering the universe is a tiny fraction of it it's not.
It is a principle, it's ideational (as our universe is as well – see next point). But it's big. – It is no more, no less than the *non-singularity*, the principle of contrariety, of inference.
Everything else, the resulting feedback control system belongs already to a specific universe.

I had chosen the term *non-singularity* in 2006 **[1]** before I realized it is used in other fields of science.
So I have to declare this use of the term has no references to

- algebraic geometry (multidimensional matrix),
- quantum gravity,
- theism.

Basically I described it with the theorem:
SINGULARITY (NON-EXISTENCE) IS LOGICALLY NOT.
(= there is not nothing) **[2]**
(It's the same then you say: there is everything, there is chaos.)
Other (a bit more entertaining) variants of the same truth are:

- Cosmological singularity is *Hawking Hoax* (not there).
- The most basical term of existence is *non-singularity*.
- The history of the universe is not condom-shaped.
- Big Bang = singularity = nothing = nonsense.

1.2 The universe consists of abstraction (and nothing else)

- A universe is ideational. **[3]**
- There is no universe without mapping the universe by feedback/ by thinking. **[4]**
- Laws of nature, abstraction, mapping of matter by mathematical probabilities is matter itself. (There is no other matter.)
  (Proof of these points see below)

1.3 Sense is the principal

Sense is the principal and the master principle, the filter of the universe and it is the master category of epistemology (of understanding the universe).

Einstein field equations or *Planck units* are surely higher developed (and more adored by myself), nevertheless secondary to *sense*.

The world is strictly shielded from chaos by the filter of *sense* – filtering something not to the effect it can't be seen, but: something wasn't generated (didn't become part of the universe) because it didn't satisfy sense.
That sounds almost like creationism, but the evolution by sense (the universe) is free from any intention – it is self-propelled (called *law of nature*).
Self-propelled means you can't have the one without the other: non-singularity without evolution.
Non-singularity is force and counterforce, comparison, closer examination, progressive differentiation.

At the beginning when light is there and no further differentiation (pretty much the biblical version) then the first differentiation by closer examination of light will not be weighty and less weighty light but bright and less bright light. Because that makes intrinsic sense.

The world grows by this means under the dictate of sense, with every replicable perception (or logic) one step further. Every confirmation of sense builds on the preceding confirmation of sense.
The arising structure of sense becomes universe-sized.

1.4 Physical constants (and any other manifestation of a working universe) can't be other than exactly tailored

Concurrently the arisen structure of sense is a thin thread, tenuous compared to what is not matching this structure of sense and what is dismissed by thinking.
The response to the essential question, to the question of meaning can never be other than a meaning*ful* one.
Everytime the world has to be challenged the response of the world will be one that doesn't make the emergence of the challenge in hindsight impossible, that doesn't make nonsense of the challenge.
By this means it is impossible *physical constants* could emerge (out of the limitless stock of chaos that lies latent behind our reality) that do not exactly fulfill what makes the question after a specific constant possible.
(Quite often cited as an example is the *fine-structure constant*. There were no life in the universe, or even molecules, if its value wouldn't be exactly
$\alpha = 7.297\ 352\ 5698 \times 10^{-3}$. But as set out above it is not surprising.)
– And that is the proof the universe is ideational, the universe exists as a feedback of sense and can't exist without a feedback of sense (another question is whether this is the same as *thinking*).
The only that is on its own terms (that is independent from a universe) is this: there is not nothing. **[2]**

1.5 The world is a sense machine – stringently

A next question can be deduced from 'feedback of sense': Is the world (to live in a world) a simulation?
A "computer" simulation certainly not, unless this [*there is not nothing = non-singularity = feedback system*] is called a computer.
But it makes no difference in the final analysis and in the field. – 'Simulation' would be a different word for the same principle of existence.

The world generates and extends itself continuously according to an intrinsic constraint we call sense.
In most cases the sense is accomplished simply by compliance of causal logic (machine logic).
The universe and mapping the universe by thinking is not identical but depends on each other and it is both made of the same matter: it is *ideational*.
The universe and it's mapping together form reality, the world, a positive feedback to ensure sense and consistency.

Both evolve together. – This understanding of the world dissents the idea the universe is there (complete and without the need of sense) no matter it is mapped by thinking or not.

1.6 Generating of world

By continuous feedback between universe and mapping the universe the world *generates* itself.
From an everyday view *Generating of world* looks like this:

The Fourth-Bag-Problem **[5]**
Someone is standing in front of his apartment door and is looking for the key. The key should be in one of the three travel bags. After the key couldn't be found in the first two of the bags it must be in the third (in the broader sense: 'law of nature').
After the key also doesn't appear in the third bag there arises an *enforcement of sense*.

It comes into mind of the searcher he bought today a fourth bag which is still in the car. In that bag he finds at last the key.

Superficial causality implies the fourth bag became necessary because of the extra souvenirs. Another causality implies there can be no question of souvenirs or a fourth bag without the absence of the key in the third bag.
Be that as it may, there will be no way back to a world without the fourth bag (*generating of world*).

Many fields of experience exist far apart from each other and the sense that forms one field has barely to consider fields that do not bear reference.

That establishes long and mature lines of confirmation of sense that are widely independent. When such lines have to manage unexpected points of contact with each other nature sometimes has no other chance than to become weird and quirky to preserve any sense (wave–particle duality, uncertainty principle, continuous vs. discrete etc.).

1.7 Targeted generating of world

Scientists force nature to make decisions. The scientists call this experiment. As long as a phenomenon in the universe isn't examined under unambiguous conditions nature stays ambiguous (the phenomenon isn't a fix part of the universe yet). – It is well known in computer science: where deficiencies don't attract attention (doesn't influence the result) the routine saves an accurate calculation. As big as the world is it has to act economical (The truth of perception is extremely focused/ blinding out, I call it laziness of the universe). But the world is not a clever designed routine. It follows simply the basic rule of nature: what is not enforced (is not necessary to keep sense) doesn't happen. **[6]**
After nature was forced by the experiment to take an unequivocal stand there is no way back, there will never be again a world without let's say quantum physics.

Until that point a different evolution, the manifestation of another universe (one where quantum phenomenons do not happen) was possible.
– This is 'generating of world' and it is understandable it gives an euphoric 'creational' motivation for science.

II. WHAT IS WRONG WITH TODAY'S SCIENCE OF THE UNIVERSE

2.1 The universe has no size

The universe as it was 13.8 billion years ago is called 'small' by most Big Bang theorists (who are wrong by any account).
An unimaginable dense and giant universe where the energy that today forms a complete galaxy was within the distance of a today's short wave length is called 'small' (with the two-finger gesture toward the TV camera and the spoken words 'pea-sized').

The universe at that stage was not a bit smaller than it is today for these reasons:

1.) Not only the *word* 'space', space itself is (as any abstraction) ideational. Spacetime can be curved, space can scale, can be Non-Euclidean and perhaps even form a loop. But space is always limitless (looped or not), it has no size, it can't 'grow' inside an 'uber universe' (like Big Bang theories believe). Space is there (limitless and mathematical) or it is not there.
Since spacetime is the base of this universe the universe has no size.

2.) For a sequence of conclusions: **[7]**

- The term 'universe' says: all is implicated, 'outside' is nothing, e.g. no dimension.
  'Outside' is no space.
- When the 'outside' has no dimension also the 'inside' as a whole can't have a shape. **[8]**
  The universe is not a sphere.
  The universe has no exterior surface, no limit.
- Without an exterior surface there is no size measure. The universe has no size.
  The universe can be dense or diluted. –
  The universe can't be big or small.

3.) When spacetime is as curved as it was 13.8 billion years ago our expectations what space is or what time is don't work.
That means completely different physics – maybe nearly no physics at all. – But the essentials are this:
One couldn't say this world is 'big' and that one is 'small'.
There is no comparison.

The way we perceive and experience the world, the way we think the universe, reason out and verify – that *is* the universe.
"It is pea-sized." at any rate isn't thinking at all.

2.2 The origin of the universe is not a location

Most astrophysicists agree with some findings or other:

- The universe has no center (and therefore no center of mass).
- The increase of distances between galaxies is not an explosion.
- There is no point (location) from where the galaxies diverge from.
- There is no direction 'outwards'.
- It`s not a momentum what drives the galaxies apart.
- It`s not acceleration of mass what drives the galaxies perhaps increasingly apart.

But when it comes to their beliefs these astrophysicists stay with their *Point-Origin Big Bang* and fight the truth:

The center of limitless-everything is everywhere.
The origin of the universe is not a location. **[9]**

2.3 'Dark energy' wouldn't effect anything

Acceleration – whether by gravity or by 'dark energy' – is always vectorial. Acceleration needs a direction.
Since there is no center of mass of the universe as a whole gravitation can't brake the increase of distances between galaxies nor can 'dark energy' accelerate it. **[9]**

Most dark energy theories (and even the *Friedmann equations*) are premised on the beliefs the universe is a bubble of limited size (has a center of mass) inside an 'uber universe'.
Since there isn't such a thing and since the universe is not a bubble these theories (including those that won the Nobel Prize) are nonsense. **[10]**

2.4 Is 'nonsense' decent to characterize the standard model of cosmology?

I'm not a mathematician. I do not fully understand the *Einstein field equations*. (More clear: I have absolutely no experiences how to use tensors.)
What I've learned is the field equations describe gravity as geometry. And what I know is the universe has no geometry. – So what did *A. Friedmann* und *G. Lemaître* do there adapting the field equations to the universe?

The mass/ energy of the universe is probably limitless, there is no size of the universe, there is no direction (vector) for 'total gravity'. – And that equals what?(a) – The purpose and benefit is what?(b)

(a) It equals 70.3338% dark energy. (b) It's famous.

Why didn't Einstein argue: "*Just as a planet can't orbit the universe (bacause there is no 'outside the universe') the universe itself can't act as an object of gravitation within itself. There is no gravity of the universe.*"

I know why, but to protect myself I use the word *nonsense*. **[11]**

2.5 Big Voids and SMBlack Holes = source and sink

Scaling up space (or slowing down the flow of time – that's the same) has no other chance than to be a bit weird.
Scaling everything that is related to space (including the measure) would be the same as scaling nothing.
When the wavelengths of electromagnetic waves scale, the diameter of atoms and galaxies, the size of earth and people – then nothing scales.

But when only the biggest distances scale (those outside the sphere of influence of supermassive black holes/ galaxies) isn't it indeed just an explosion and not scaling? How can an explosion happen without being an explosion?
How can scaling happen without being scaling?

One answer is: the universe could be compared with something like expanded metal (in three dimensions). **[12]** Inside the big voids between the SMBHs turns nothingness into emptiness (less mythical: space scales there) and increases the distances. (In spacetime: big voids and black holes = source and sink) **[13]**

How the gradients and field lines are distributed in this *Void-Hole-Model of Spacetime* could perhaps even be used to describe the debated rotation of outer parts of galaxies (reasoned yet with dark matter).
The curvature of spacetime would be shaped not only by mass (monopole in the center of galaxies) but by the field between big voids and black holes ('dipole').

2.6 The light of the universe isn't observable

The light of the universe isn't observable for us. Because the universe lies beyond the *particle horizon* (except the tiny part of it that is on this side). The light of the universe can never reach again our 'hideaway' (once it was the case – the night sky wasn't black but white) and by scaling of space more and more sources of light (galaxies) disappear beyond the particle horizon.

It has always been this way in history of mankind: there are some who propagate beyond the known world is nothing, there is the end of the world.
In this case what the truth is can't be calculated or experienced. The only chance is to realize what the nature of the universe in general is.

What is the nature of the universe when you go from Planck length to DNA code, from octopuses in the ocean to the Divina Commedia or to clusters of galaxies?
It is obscene immoderateness **[14]** – and not limitation as most astrophysicists wish and promote.
These physicists are not so much interested in truth but in promoting their equation in history of science. They know their strayed equation has only a chance to survive in falsehood, in a *limited "universe"*.
But this knowledge is suppressed into subconsciousness and dazed by secondary or distracting issues: LHC, Higgs particle, gravitational waves etc. When someone tries to leave the dead end fundamental physics are in his next thought will be: will colleagues accept me? – They will not. They have interests. They all are prisoners of a system called 'allegiance or excommunication'.

How to name best those who propagate that at a distance just where the particle horizon sets in the existence of galaxies stops, the universe is not limitless but 200 bn galaxies big? – (I know it.)

2.7 Most galaxies move a billion times faster than light

Moving faster than light isn't a big deal and it is standard everywhere except in the close proximity (100 bn light-years or so from where you just are).
When you scale something that is really large it happens anyway. – Let's say you scale 1m in front of you at a rate of 10 cm/sec. At the same rate 100m will increase its length by 10 m/sec. 4 million km will increase by 400,000 km/sec. That is faster than light but the scaling rate in front of you is still 10 cm/sec.

Of course this is nothing new. And it is not shocking because scaling of space is not relativistic, the law of speed of light isn't contravened.
But it helps to know: the bigger the distance of a galaxy is the faster it moves away. Even better:
The bigger the distance of a galaxy is the more it *appears to be accelerated* (in the far distance the 'acceleration' is bigger than 1 bn g) – that is how linear scaling works.
(*Exponential* scaling is a more spectacular story.)
The issue has got nothing to do with acceleration, not even with velocity (and in the far distance it's much faster than light).

2.8 'Faster than light' is slow. – Let's accelerate!

The Big Bang theorists believe it's about velocity in space and about momentum of masses when distances of galaxies increase. – To accelerate or to brake billions of galaxies that are potentially a billion times faster than light these scientists have to handle a lot of kinetic energy in their theories. Really.
They think big.

Saul Perlmutter, Nobel Prize winner of 2011, wrote: "*Most astronomers assumed [the expansion of the universe] would be slowing down because the gravity of all the combined objects in the universe would be hitting the **cosmic brakes***." **[15]**
Indeed the *recollapse* of spacetime could easily happen – if it were in the nature of spacetime itself (for sure not if it would depend on gravity).
One may think a black hole when only massive enough is capable of doing anything. Its event horizon can hold back light and any radiation.
But the event horizon (gravity) is **not** the *Voodoo master* of everything. – To retract light that is once emitted is Voodoo. (And Perlmutter and colleagues are its priests.)
Space scaling is as opposed to this not Newton's physics.

Perlmutter's team measured a mismatch of redshift and brightness of 50 examined standard supernovae. That's all. They proclaimed:

The expansion of the universe is accelerating.

The consequences were devastating.
The very terms '*acceleration*' and '*(dark) energy*' are as misleading in this context a whole generation of cosmological science is lost.
The financial damage a single Nobel Prize can bring about can amount to several hundreds of millions of dollars:
Conceptually misguided space missions **[16] [17]**, satellites, telescopes, Dark Energy chairs at universities, science TV shows and science books that spread disinformation etc. – worldwide.
All that just to .. (I know what the plan is.)

In fact the Perlmutter measurements do not prove the increase of distances of galaxies goes *beyond linear* scaling of space (which is known since 1927) **[18]**, do not prove *exponential* scaling (in their conceptual field '*acceleration*').

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In the distant future the world fades away into limitless divergence, into cold and darkness. – It is romantic and tragic. – This is the world as the world can be seen.
Without mathematics, straightforwardly, independently – free from those dark forces of science business, free from endorsers, budget speculations and faked cognition.

References and notes

Not all of the listed references meet the standards of academic publishing (those are simply unsolicited resp. not-peer-reviewed web articles).

1. Stephen Winter, "*Non-existence is logically not.*", in: Wir sind der Schneider, wir sind der Leib des Universums www.hashsign.co.uk (2006)
2. I have difficulties to translate my thought into English. I don't want to say 'Nothingness doesn't exist'. I want to say: 'Da ist **nicht** nichts.' – For certain the sentence is already written somewhere else. I only can't find it. (Because I never read philosophers.)
3. Stephen Winter, "*That which is ideational is the only existing, it is the universe, it is what the world is made of.*", in: Kritik zu 'Manifest der Hirnforschung' www.hashsign.co.uk (2004)
4. Angelus Silesius, "*Ich weiß, dass ohne mich Gott nicht einen Augenblick kann leben.*", in: Cherubinischer Wandersmann (1657)

5. Stephen Winter, "*The Fourth-Bag-Problem*", in: Kritik zu: 'Simulacron-3, Welt als Computersimulation' www.hashsign.co.uk (2007)
6. I discussed it with de Selby and he hammered it out.
7. Stephen Winter, "*Wo dem Denkenden der Maßstab fehlt, gibt es auch keine 'Kleinheit'.*", in: Schwerkraft in der Kosmologie www.hashsign.co.uk (2007)
8. The same is true for the forth dimension. When 'outside' of the universe is no time also the 'inside' can't have measurable limits like a starting point.
9. Stephen Winter, "*The origin of the universe is not a location.*", in: Pop Pop Bang Cosmology www.hashsign.co.uk (April 2013)
10. The Nobel Prize in Physics 2011
11. Is it appropriate in a scientific essay to put out conspiracy theories? – I don't know. When not one generation of physicists and mathematicians is fooled by someone but five or six generations then perhaps to say simply FUCK is more appropriate.
12. Stephen Winter, "*The universe is like scaling a sponge without scaling the holes.*", in: Not dark yet www.hashsign.co.uk (Feb. 2013) Later I replaced the metaphor with *expanded metal*. It is more evident when the holes scale.
13. Wikipedia: Indegree and outdegree (directed graph)
14. The word '*immoderateness*' in German has a double meaning (I don't know it, perhaps in English too but I think it's better to say in German): *Die Maßlosigkeit des Universums ist obszön.*
15. Saul Perlmutter, "*This was perhaps the biggest scientific shock of the late 20th Century.*", in: How Is SNAP Going to Learn About Dark Energy? Lawrence Berkeley National Laboratory (ca. 2010)
16. SNAP mission, funded by NASA and U.S. Department of Energy, expected for 2020
17. eROSITA mission, funded by DLR (Germany), expected for 2016
18. Georges Lemaître published his report in 1927 in which the theory of the expansion of the Universe was proposed for the first time. According to some Wikipedia pages the report included already the idea the increase of distances of galaxies is caused by *expansion of space itself*. I didn't undertake to verify this idea was part of the content of Lemaître's report.