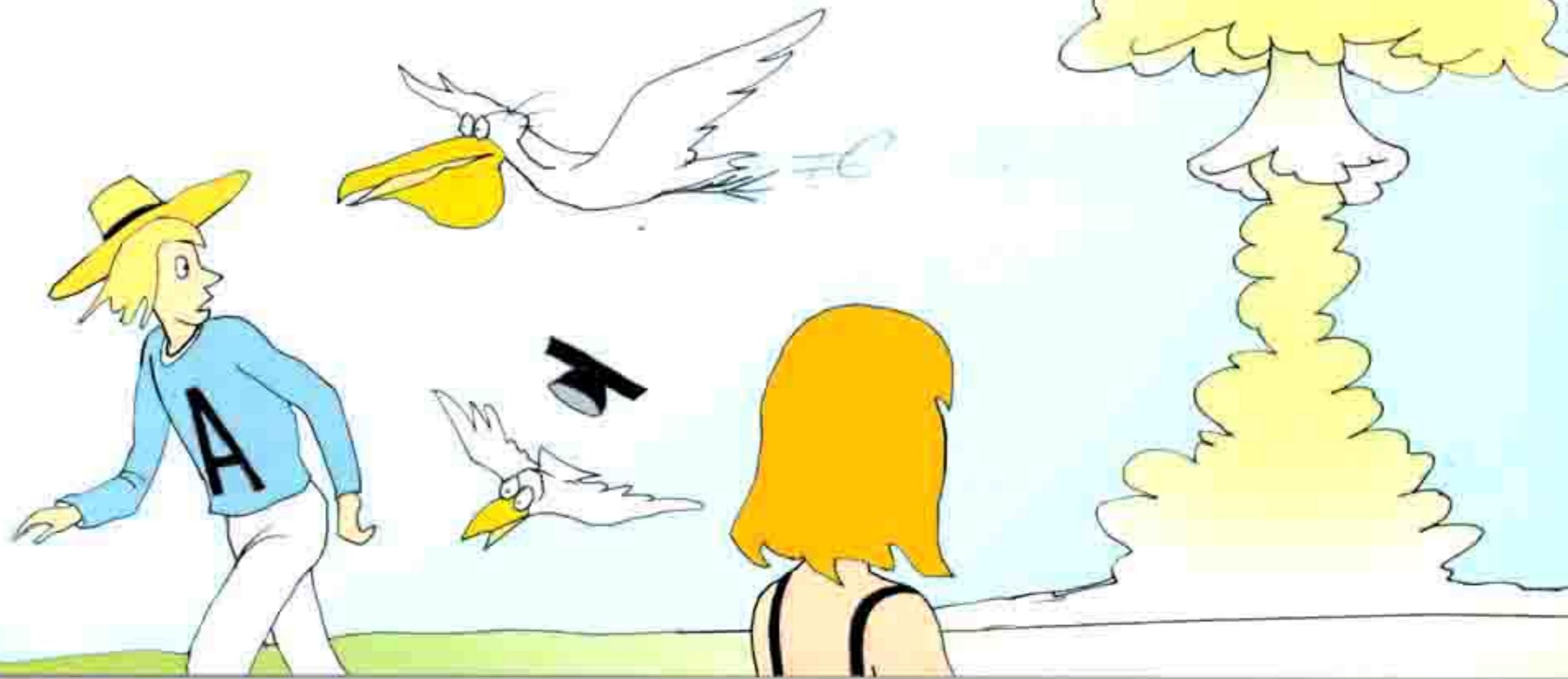


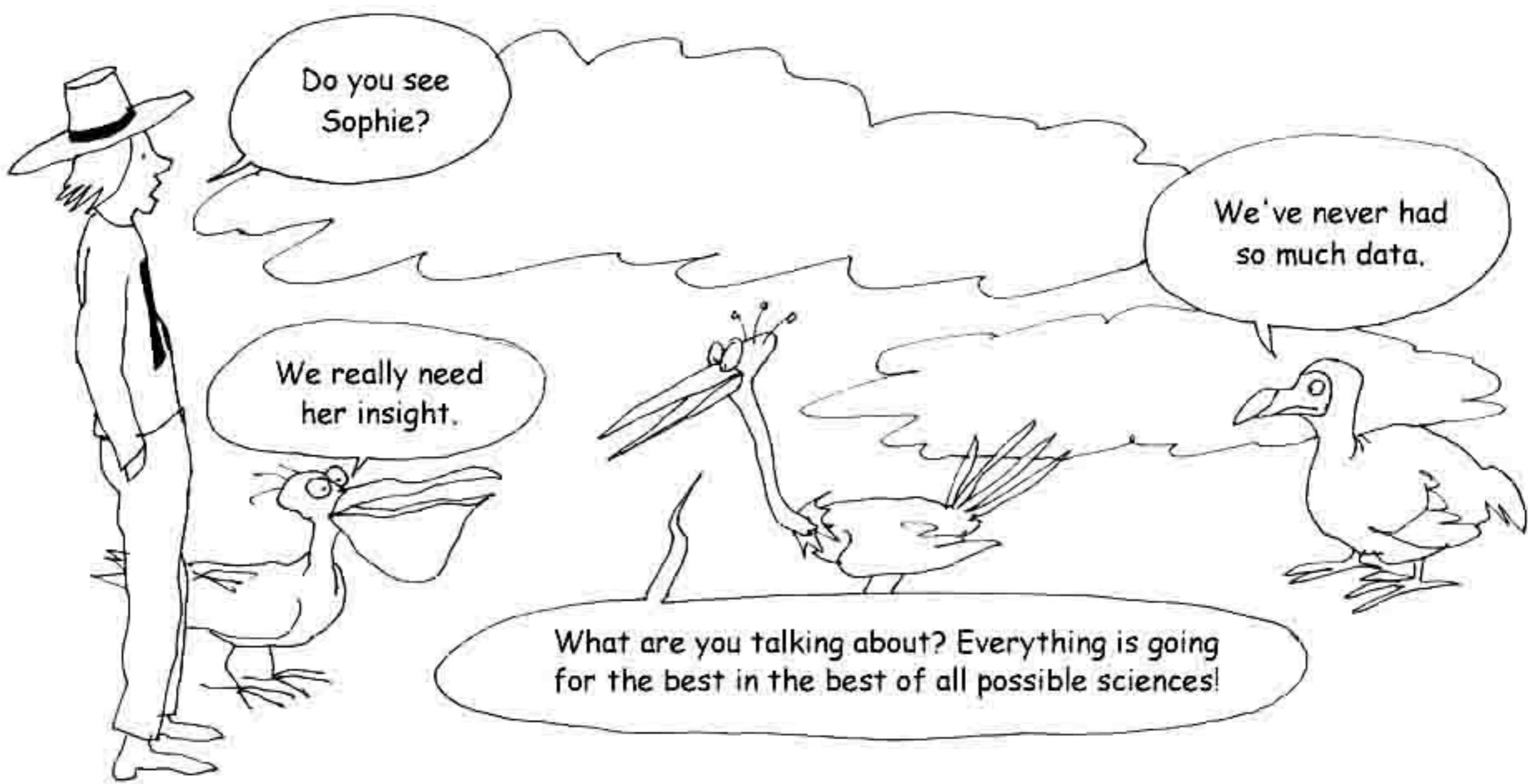
Jean-Pierre PETIT

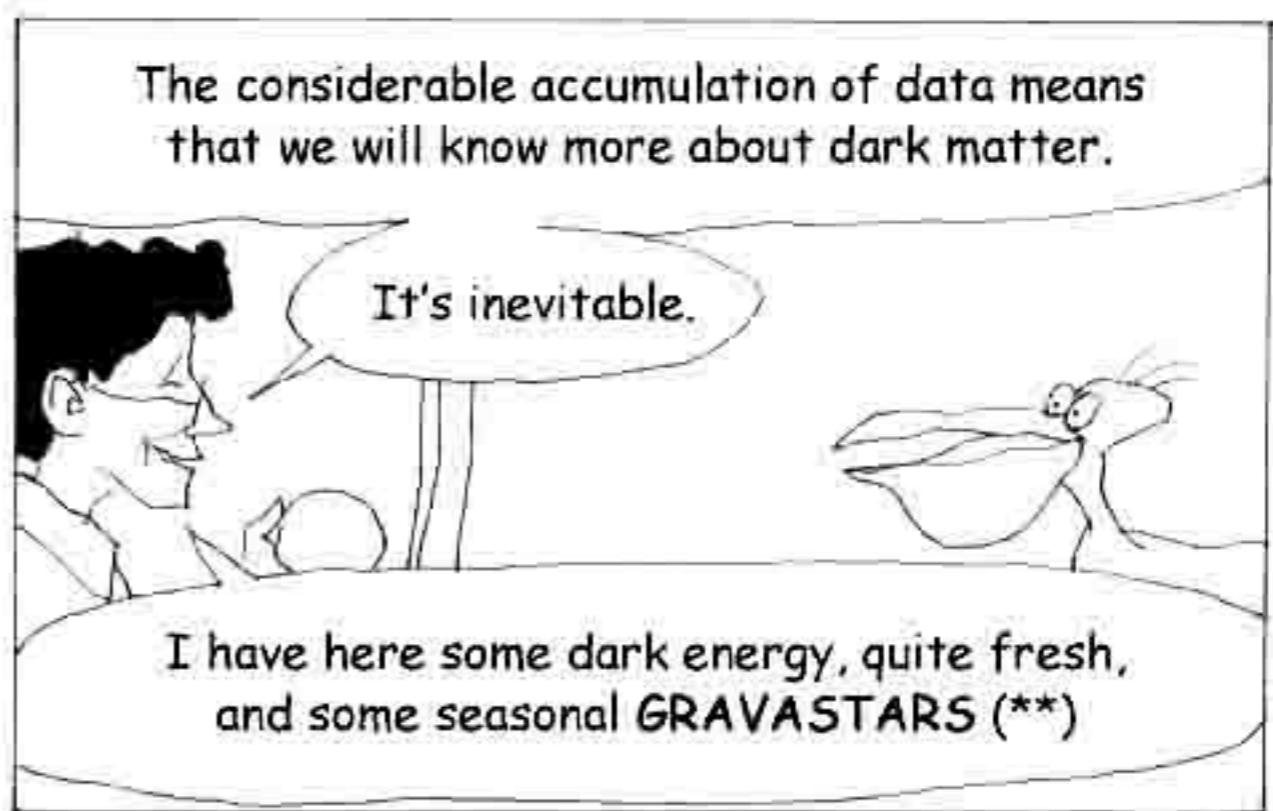
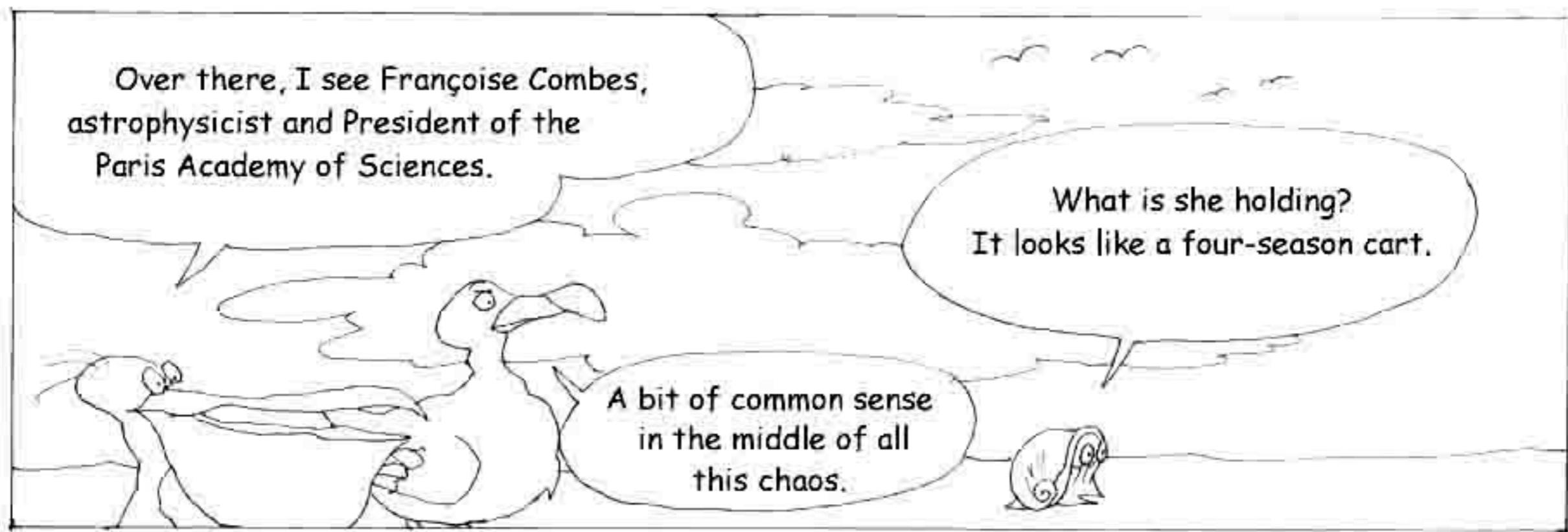
THE METAPHYSICON

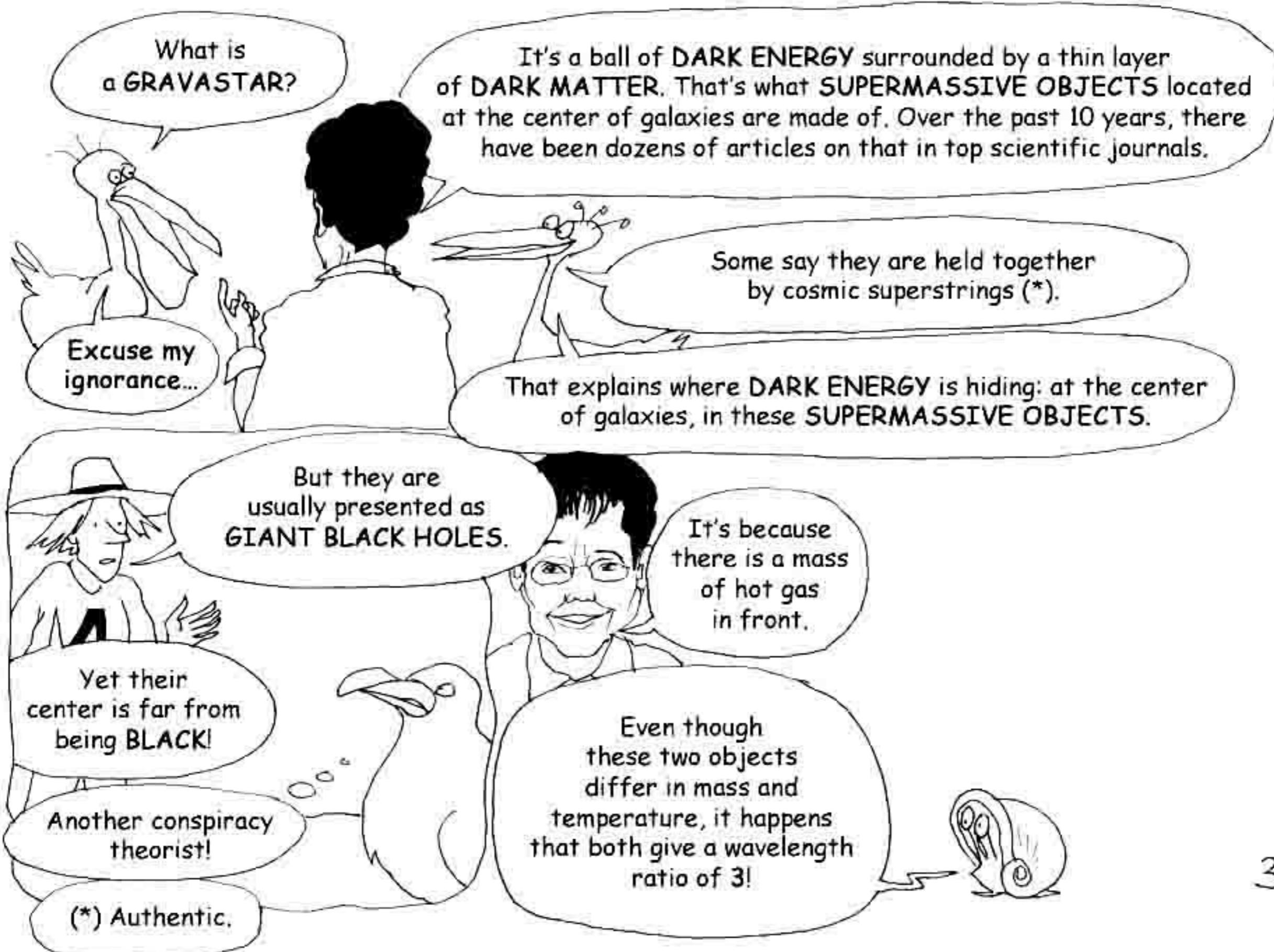
Understand or disappear

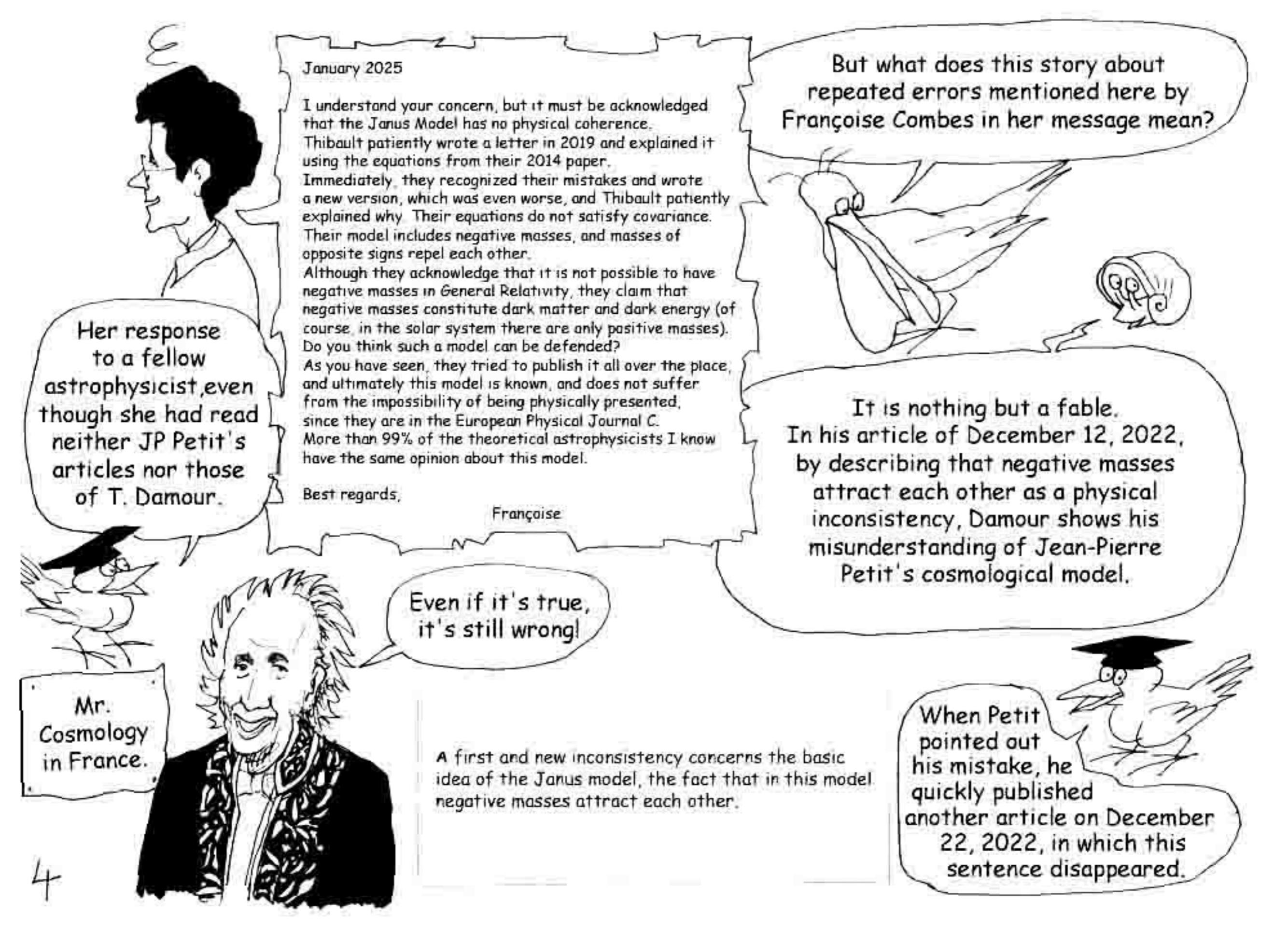


THE METAPHYSICON









January 2025

I understand your concern, but it must be acknowledged that the Janus Model has no physical coherence. Thibault patiently wrote a letter in 2019 and explained it using the equations from their 2014 paper. Immediately, they recognized their mistakes and wrote a new version, which was even worse, and Thibault patiently explained why. Their equations do not satisfy covariance. Their model includes negative masses, and masses of opposite signs repel each other. Although they acknowledge that it is not possible to have negative masses in General Relativity, they claim that negative masses constitute dark matter and dark energy (of course, in the solar system there are only positive masses). Do you think such a model can be defended? As you have seen, they tried to publish it all over the place, and ultimately this model is known, and does not suffer from the impossibility of being physically presented, since they are in the European Physical Journal C. More than 99% of the theoretical astrophysicists I know have the same opinion about this model.

Best regards,

Françoise

Her response to a fellow astrophysicist, even though she had read neither JP Petit's articles nor those of T. Damour.

But what does this story about repeated errors mentioned here by Françoise Combes in her message mean?

It is nothing but a fable. In his article of December 12, 2022, by describing that negative masses attract each other as a physical inconsistency, Damour shows his misunderstanding of Jean-Pierre Petit's cosmological model.

Mr. Cosmology in France.

Even if it's true, it's still wrong!

A first and new inconsistency concerns the basic idea of the Janus model, the fact that in this model negative masses attract each other.

When Petit pointed out his mistake, he quickly published another article on December 22, 2022, in which this sentence disappeared.

The problem is that everyone relies on these papers by Damour, posted on his page at the INSTITUTE OF ADVANCED SCIENTIFIC STUDIES, without reading anything themselves, like Etienne Ghys, whose role, as PERPETUAL SECRETARY, should be to clarify these matters.

But he does nothing.



Etienne Ghys
mathematician, geometer



Like
Cédric Villani,
these academicians
only engage in
COMMUNICATION.

SPIDERGUY,
the man of
the spider.



My feeling is that
something is brewing.

Oh, I see Mr. Albert.

You, who have traveled a lot,
give us your opinion.



Once a century,
one really has to decide to do
a thorough cleaning.

In which field?

As usual,
in **GEOMETRY**.

A new geometry?

When in 1958 David Finkelstein (1929-2016)
introduced the idea that inside "Black Holes"
the space and time coordinates exchange
their roles, we really lost our minds!

No, it's enough
to correctly use the existing
geometric tools.

Theoretical physics and cosmology
have become psychiatric hospitals

But **BLACK HOLES** do exist !?

where crazy people
are in power!

Said Jean-Marie Souriau
(1922-2012), mathematician
and geometer.

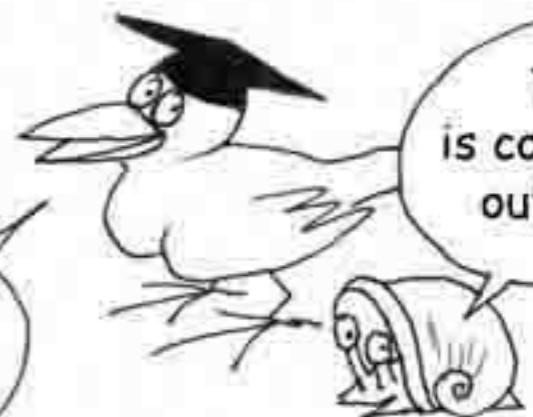
What is referred to as Modern Cosmology was mainly created in the post-war period in those sanctuaries known as the INSTITUTE FOR ADVANCED STUDIES in Princeton and the English University of Cambridge. But they did not live up to their predecessors.



It resembled a very exclusive private club. They bounced ideas off each other, accumulating articles in journals that had, in fact, become their "property." And since everyone was convinced they held the truth, they hastened to block anything that deviated from a vision that had become **DOGOMATIC**.



Personally, I never subscribed to their **BLACK HOLE** story.

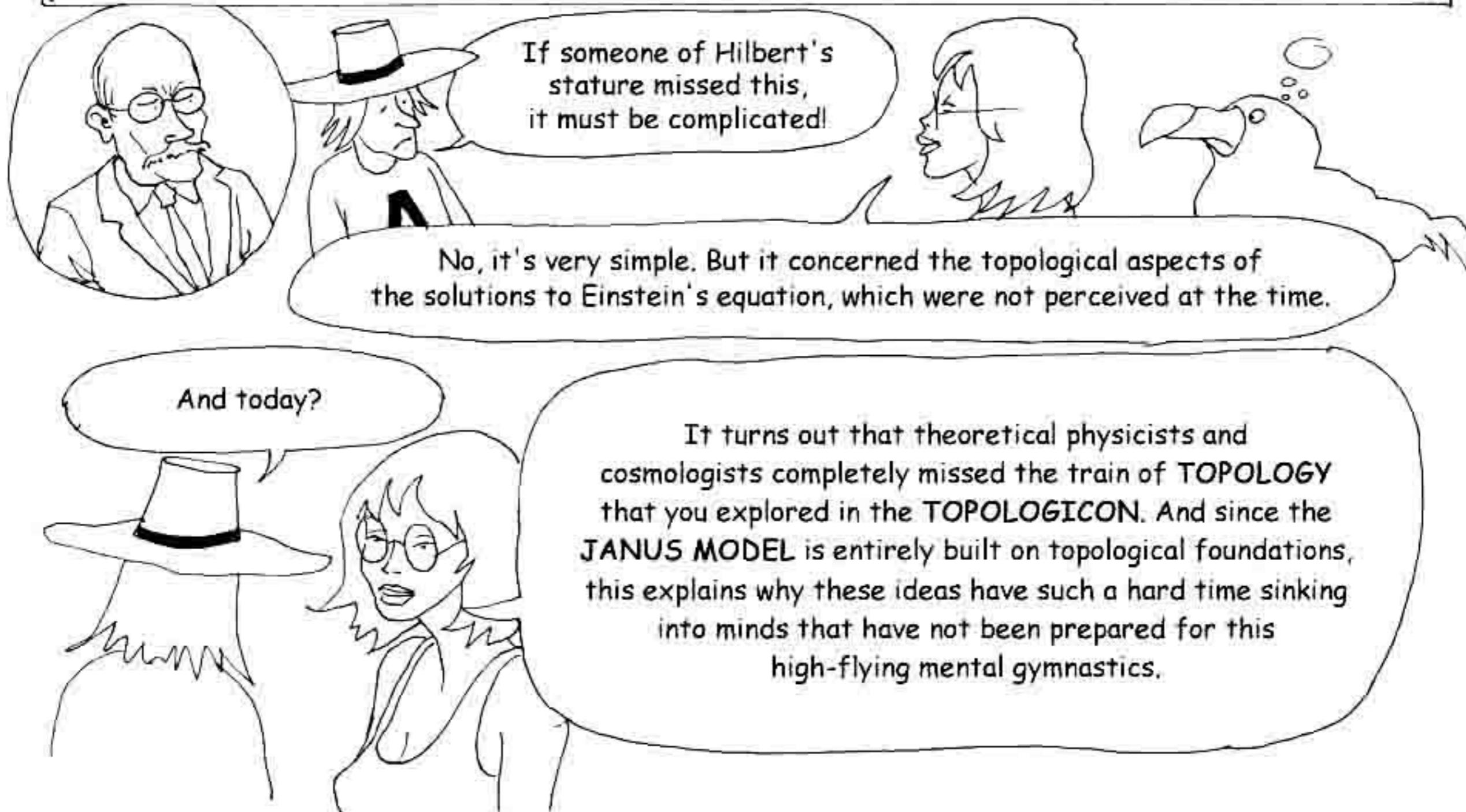


The author is considered to be out of his mind.

Today, any article that dares to question the sacrosanct **BLACK HOLE** model is immediately rejected without reading, nor is it submitted to a referee (*).

(* An expert in the field.

The model, in fact, is based on a confusion made by the great mathematician DAVID HILBERT (1862-1943), which was pointed out as early as 1989 by the mathematician and geometer LEONARD ABRAMS (*).



UNDERSTAND WITH YOUR HANDS!



Simply looking
at the drawings is not
enough. You have to
DO it yourself.

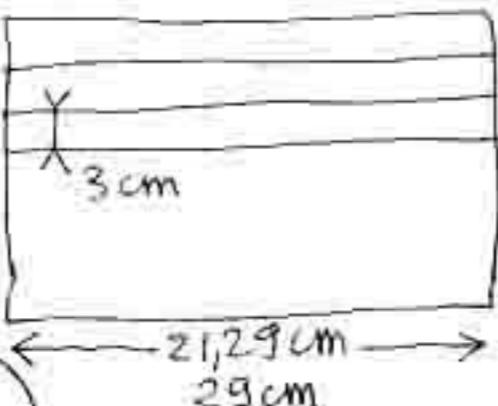


Otherwise, it won't
stick in your mind!

If you were to take away only one thing from reading this new comic book, it should be the drawings that follow, which show you how, in the **JANUS MODEL**, the arrow of time reverses. You absolutely must perform all the steps yourself with this strip of paper!

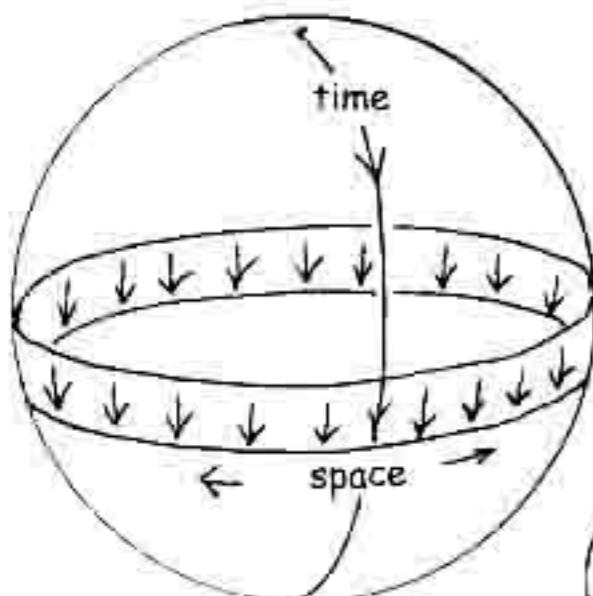
The Management

You will need scissors,
adhesive tape, and a
colored pencil.

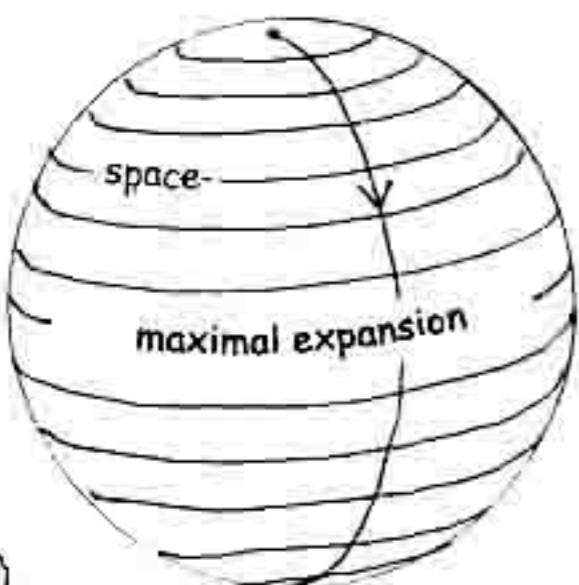


Take a sheet of $21\text{ cm} \times 29.7\text{ cm}$,
cut three strips 3 cm wide, color
one side, and tape them end-to-end.

BIG BANG

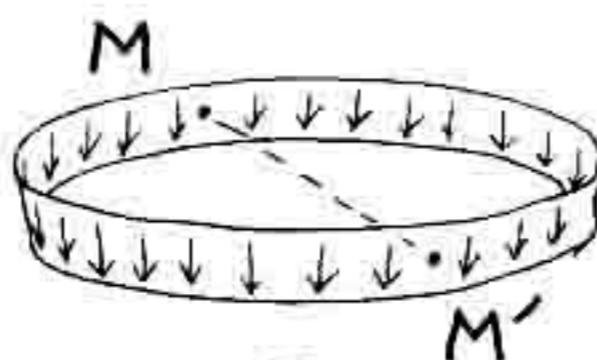


BIG CRUNCH



10

Starting from a point (the pole),
space expands (the meridian), reaches a maximum
(the equator), and then contracts.

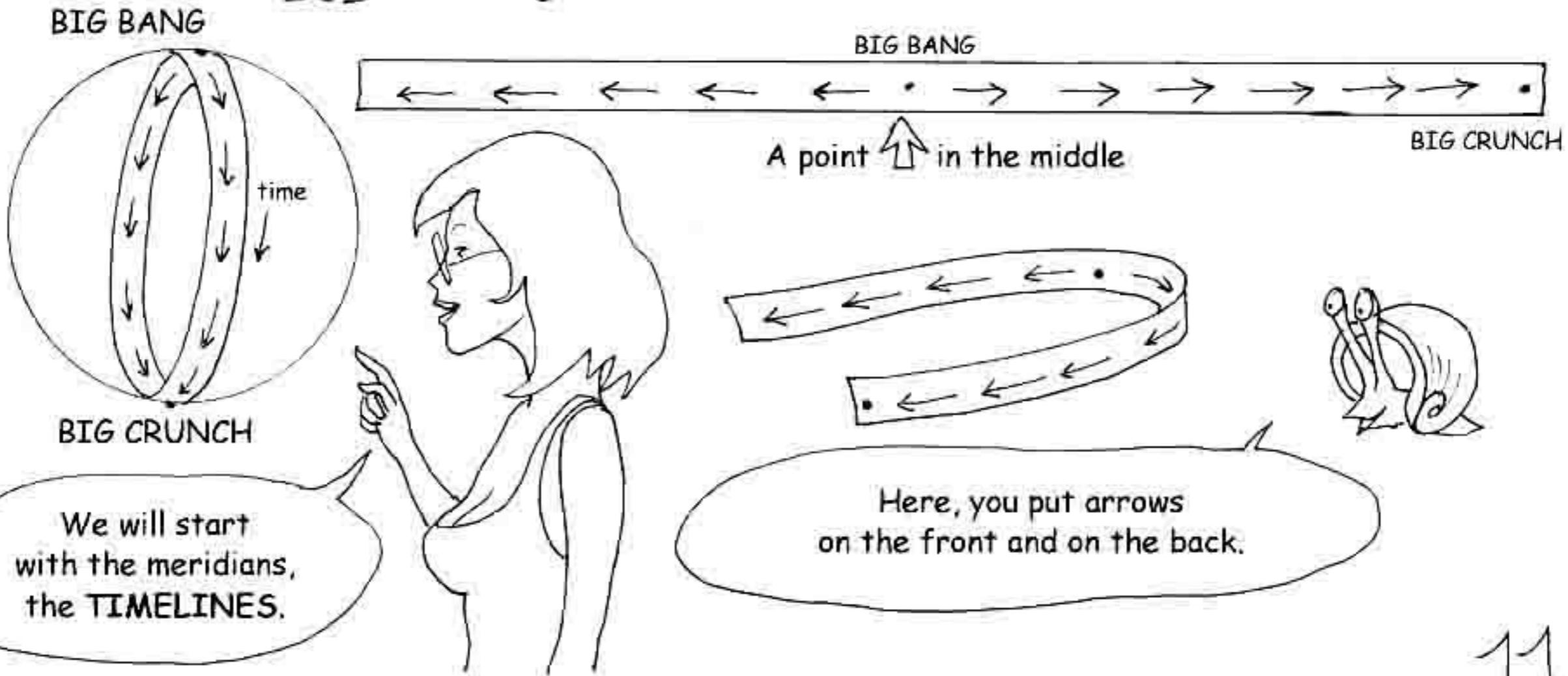
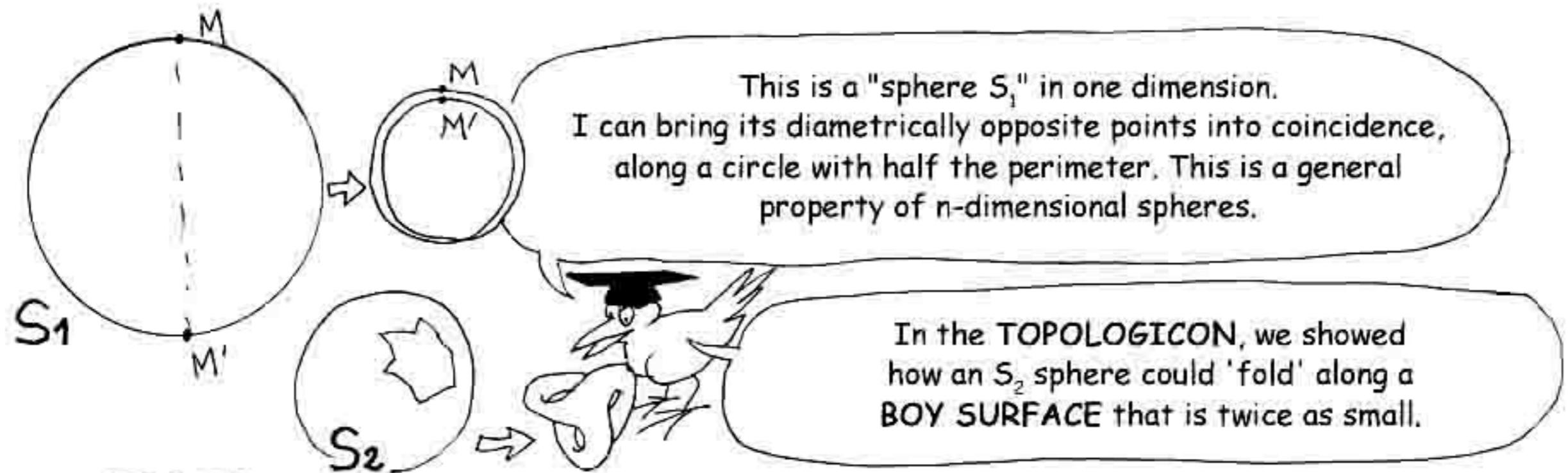


This strip represents
the equatorial neighborhood of
a 2-dimensional space-time (t, r) ,
closed in on itself, with a **BIG BANG**
and a **BIG CRUNCH**. Time flows along
the meridians. Space is represented
by the parallels of the sphere.



And you are going
to make 3 copies of this strip
with a length of 3×29 cm

We will explain you why.



COVERINGS

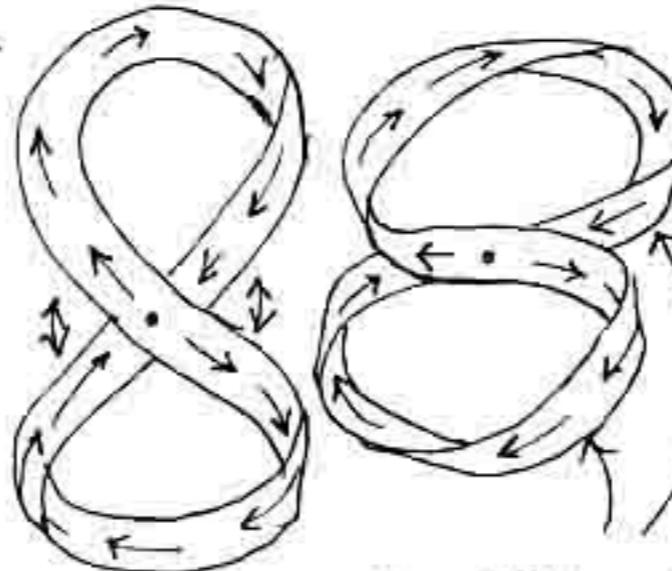
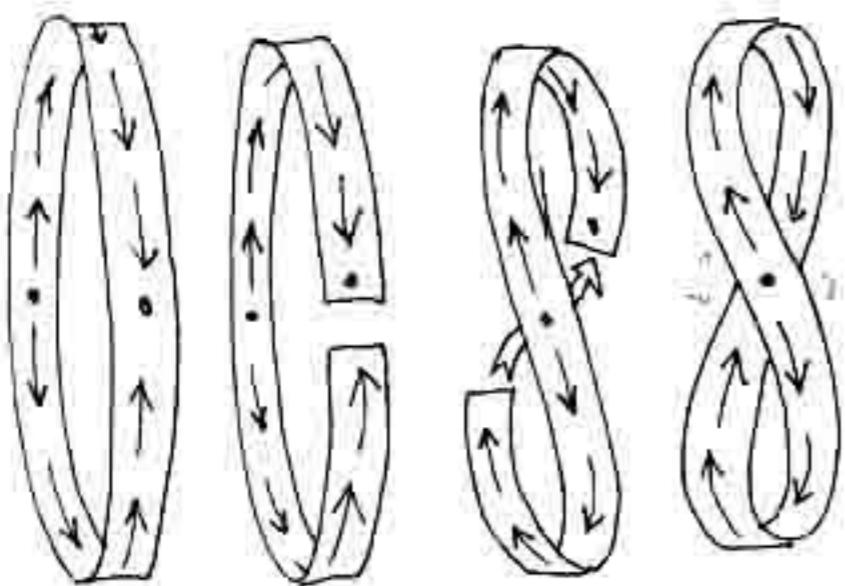
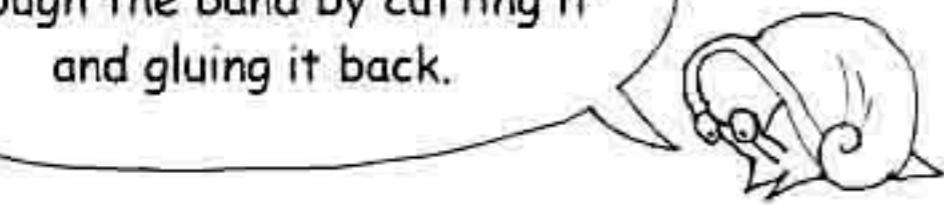
Remember that for the sphere S_2 , to be able to configure itself according to the **TWO-SHEET COVERING of BOY'S SURFACE**, it had to be able to pass freely through itself.

The same will be true for the neighborhood of a meridian of the sphere or its equator.

We simulate passing through the band by cutting it and gluing it back.

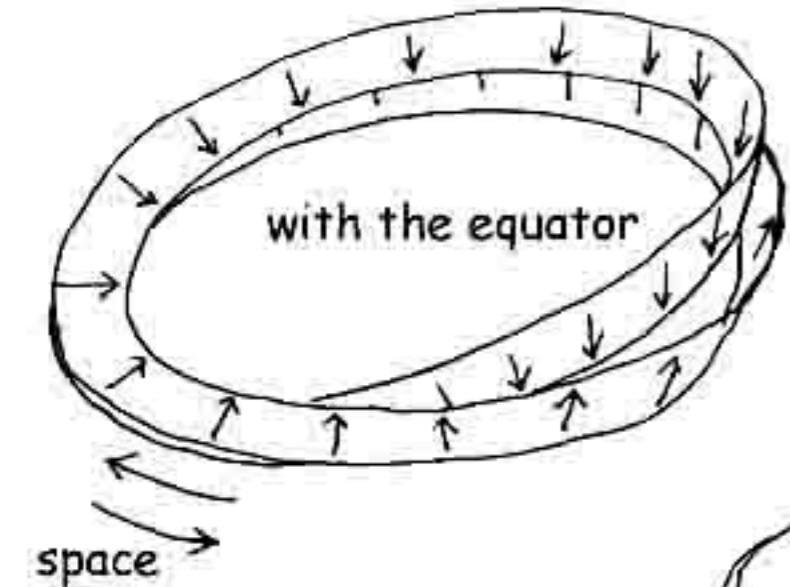
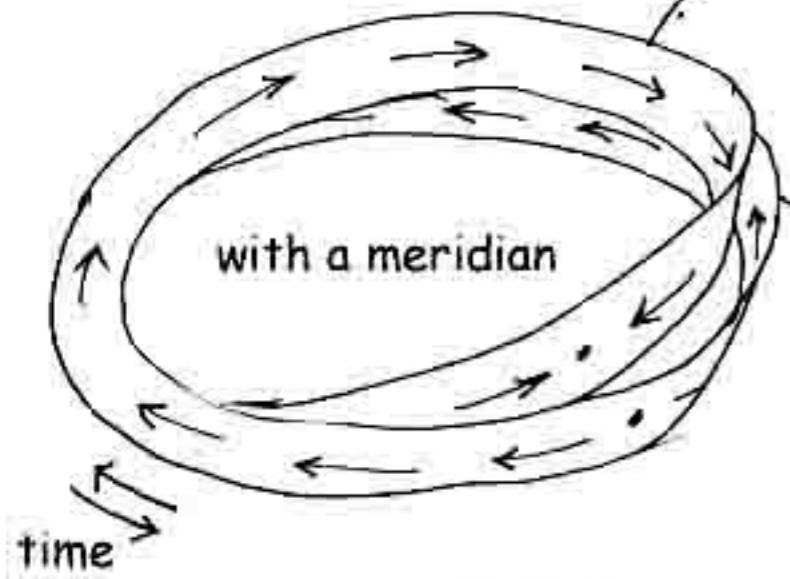


We create a rotation like this:



Two Möbius strips appear.

We can show you all the imaginable drawings,
but as long as you haven't done it with your own hands,
it won't sink in!

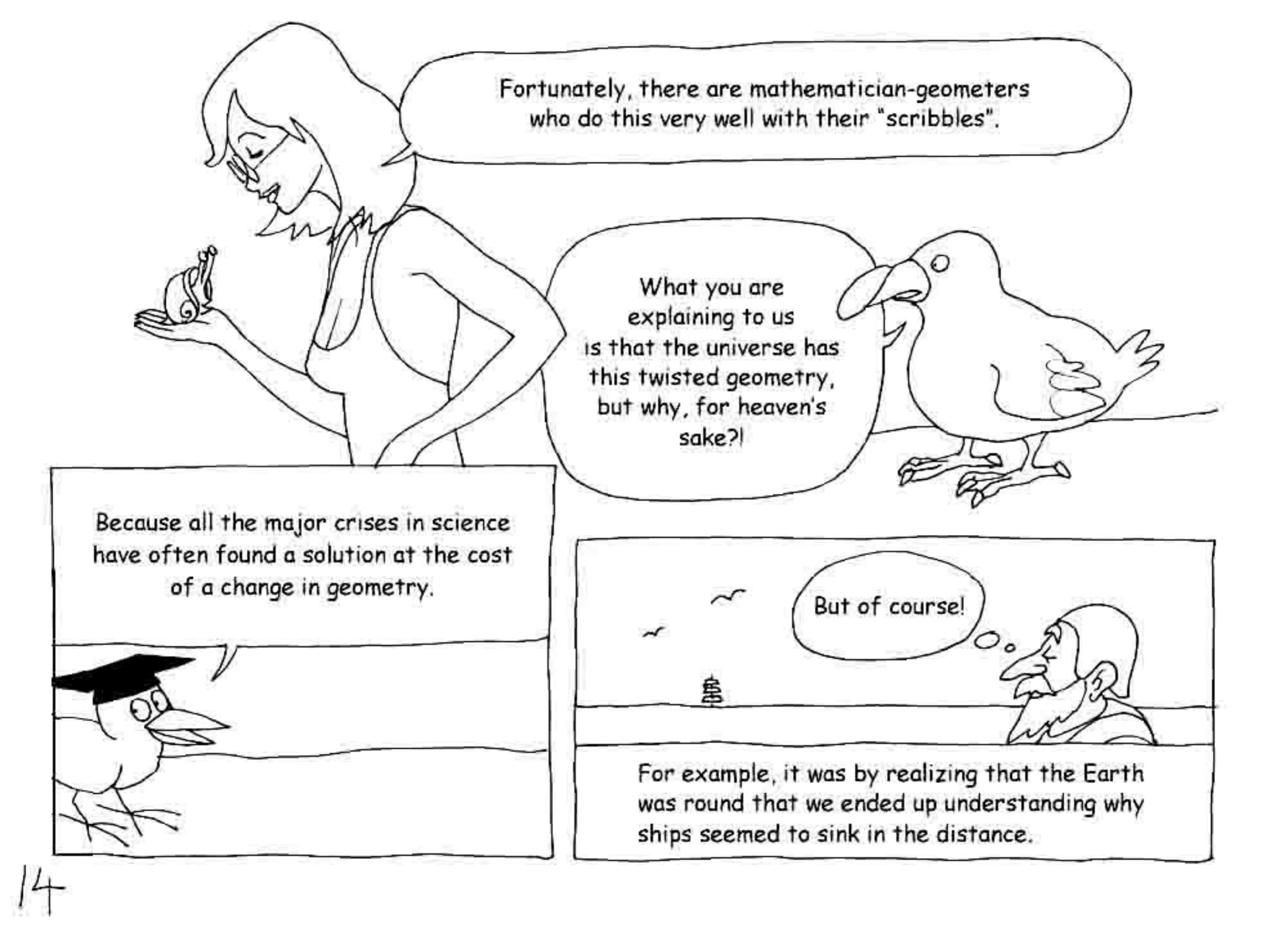


This hypersphere S_4
also has two poles which
become the **BIG BANG**
and the **BIG CRUNCH**.

And what we just did
with a two-dimensional spacetime (t, r) ,
closed in on itself, a sphere S_2 , we can do again
with a four-dimensional spacetime (t, x, y, z) ,
a sphere S_4 .

But then,
we can't draw
anything
anymore?





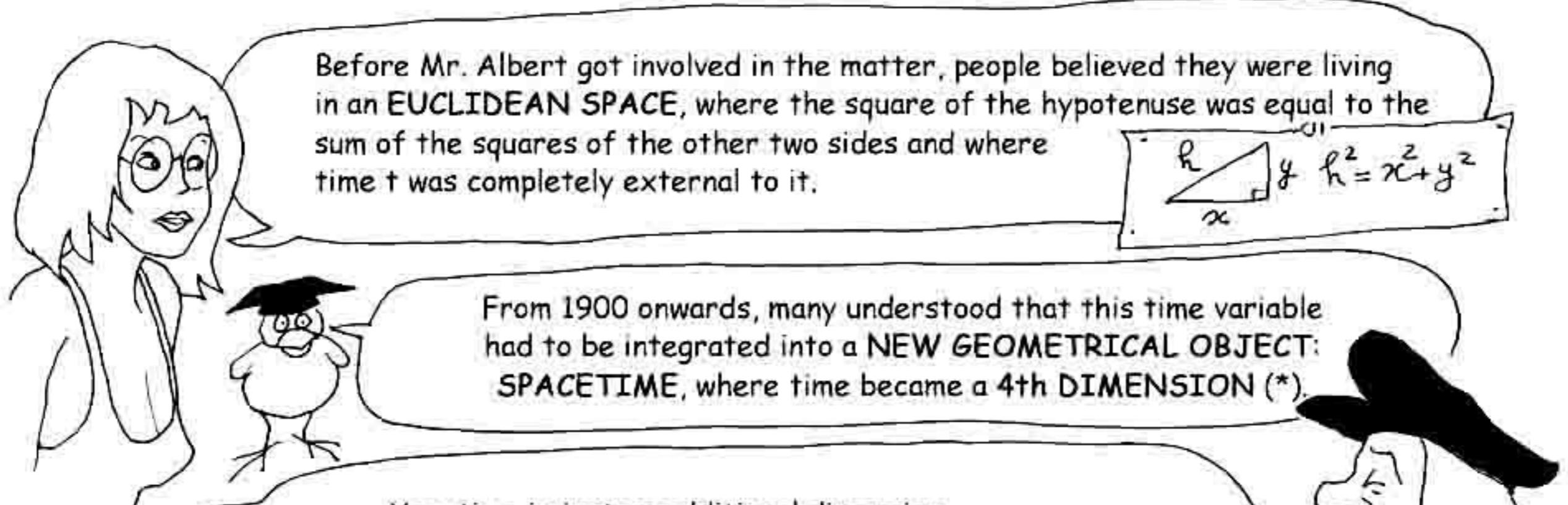
Fortunately, there are mathematician-geometers
who do this very well with their "scribbles".

What you are
explaining to us
is that the universe has
this twisted geometry,
but why, for heaven's
sake?

Because all the major crises in science
have often found a solution at the cost
of a change in geometry.

But of course!

For example, it was by realizing that the Earth
was round that we ended up understanding why
ships seemed to sink in the distance.

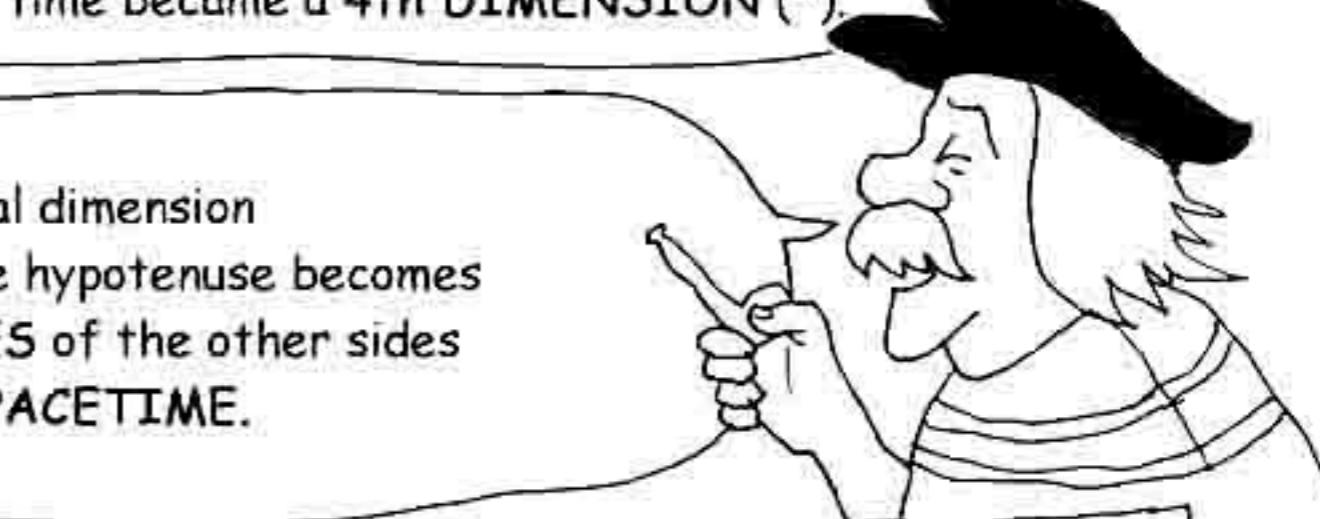


Before Mr. Albert got involved in the matter, people believed they were living in an **EUCLIDEAN SPACE**, where the square of the hypotenuse was equal to the sum of the squares of the other two sides and where time t was completely external to it.

$$\begin{array}{ccc} h & & h^2 = x^2 + y^2 \\ \diagdown & \diagup & \\ x & y & \end{array}$$

From 1900 onwards, many understood that this time variable had to be integrated into a **NEW GEOMETRICAL OBJECT: SPACETIME**, where time became a **4th DIMENSION** (*).

Yes, time is just an additional dimension in a new space where the square of the hypotenuse becomes the **DIFFERENCE OF THE SQUARES** of the other sides in this **4D MINKOWSKI SPACETIME**.



The great leap, in 1905, was that of **RELATIVITY** where the game is now played in a **DIFFERENT GEOMETRICAL CONTEXT**! (*)

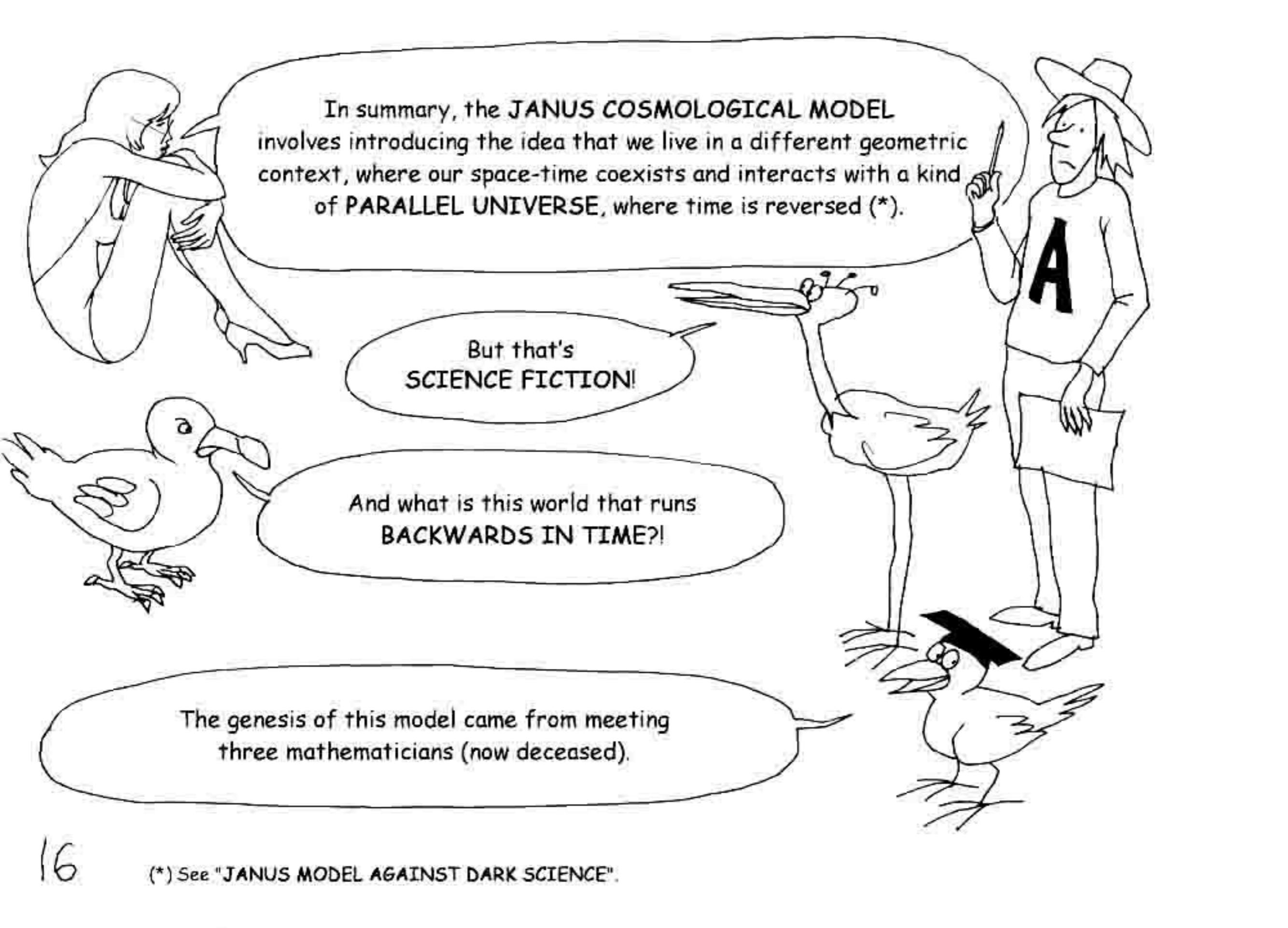
$$h^2 = t^2 - x^2 !$$

Relativistic Pythagoras!



(*) In 1902, the mathematician Henri Poincaré had proposed that the variable t be a **PURE IMAGINARY** quantity, a hypothesis later taken up by Hilbert in 1915.





In summary, the **JANUS COSMOLOGICAL MODEL** involves introducing the idea that we live in a different geometric context, where our space-time coexists and interacts with a kind of **PARALLEL UNIVERSE**, where time is reversed (*).

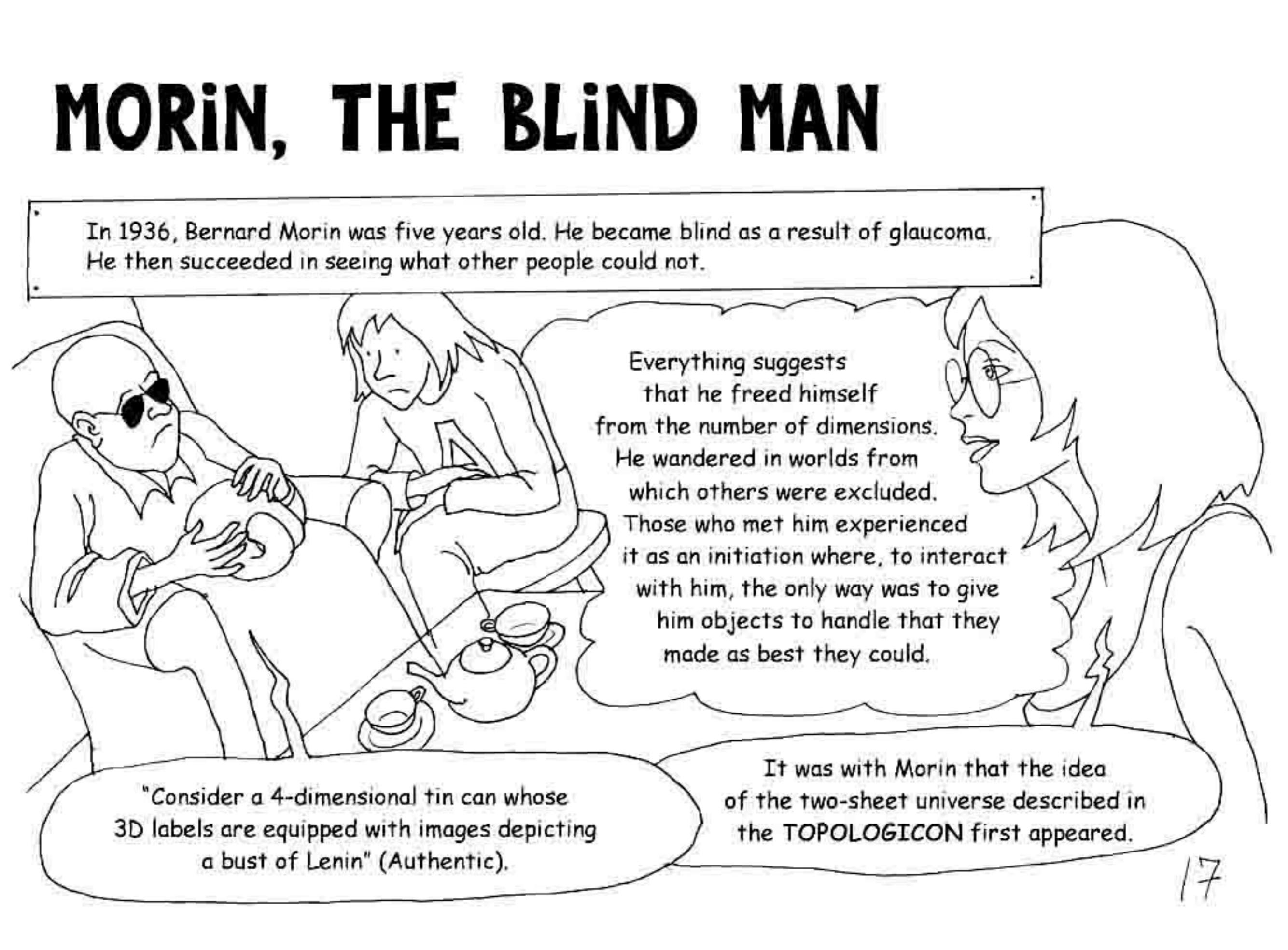
But that's
SCIENCE FICTION!

And what is this world that runs
BACKWARDS IN TIME?

The genesis of this model came from meeting
three mathematicians (now deceased).

MORIN, THE BLIND MAN

In 1936, Bernard Morin was five years old. He became blind as a result of glaucoma. He then succeeded in seeing what other people could not.

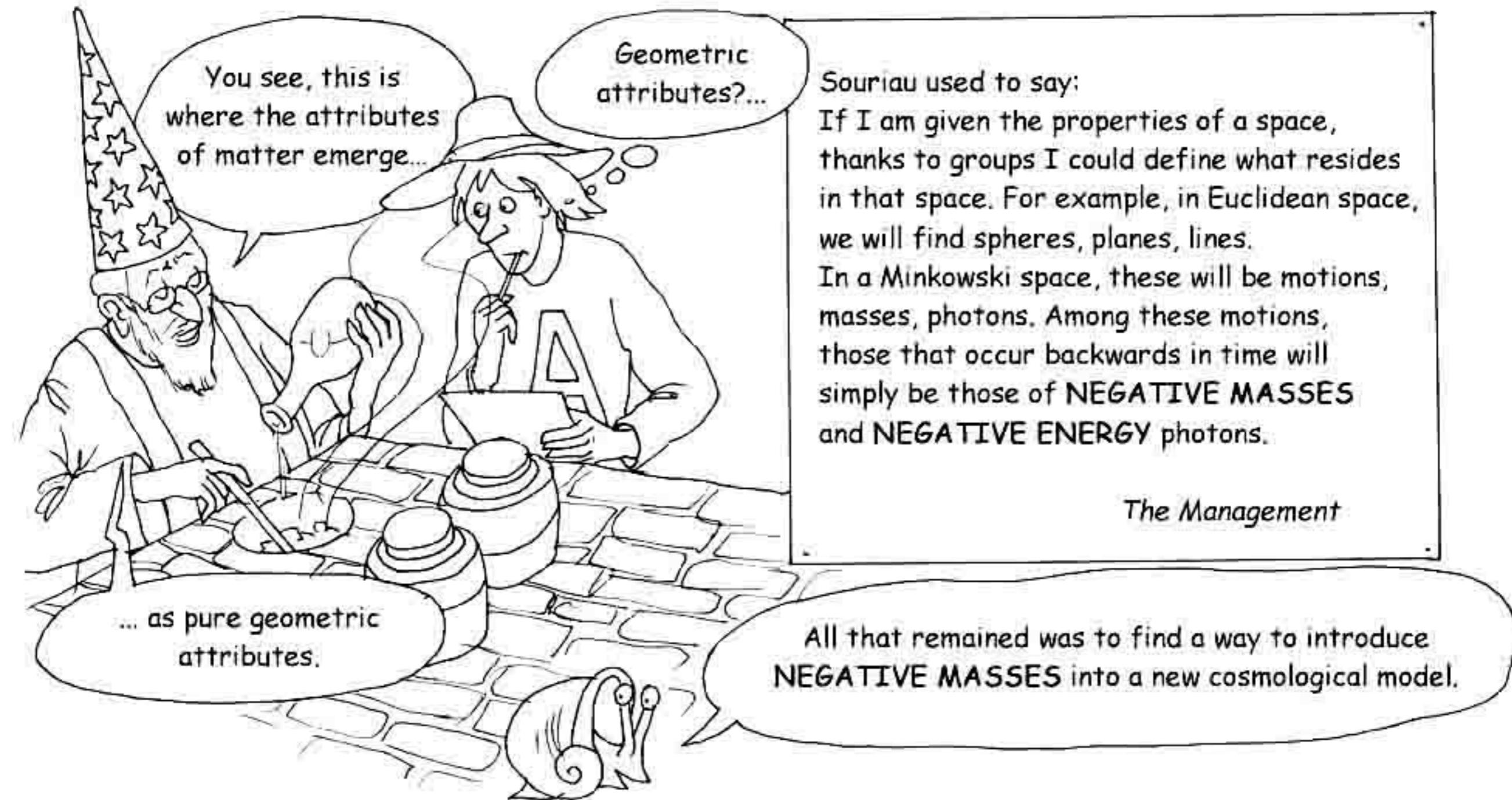


Everything suggests that he freed himself from the number of dimensions. He wandered in worlds from which others were excluded. Those who met him experienced it as an initiation where, to interact with him, the only way was to give him objects to handle that they made as best they could.

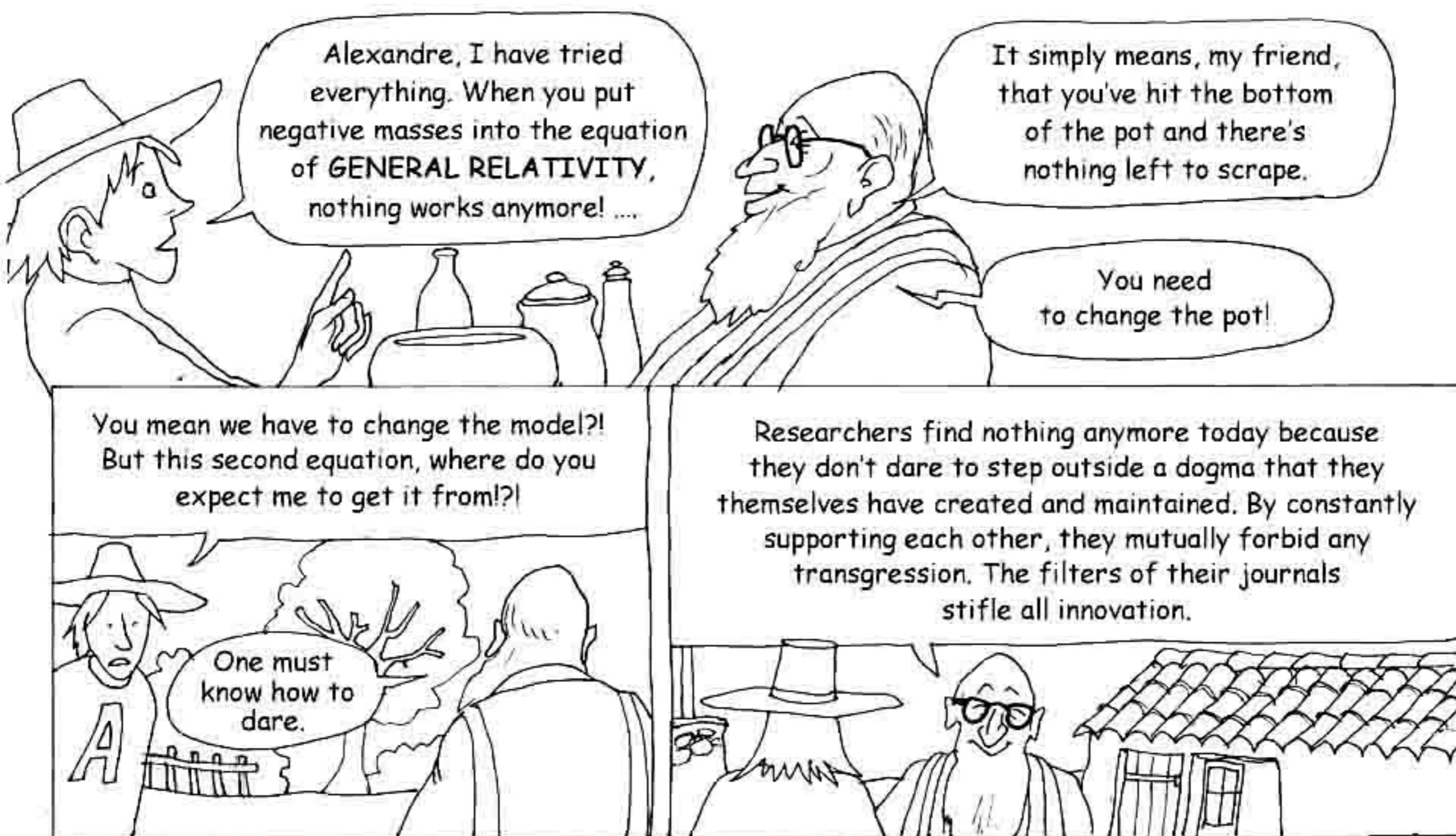
"Consider a 4-dimensional tin can whose 3D labels are equipped with images depicting a bust of Lenin" (Authentic).

It was with Morin that the idea of the two-sheet universe described in the TOPOLOGICON first appeared.

SOURIAU, THE ALCHEMiST



GROTHENDIECK, THE GENIUS



The rest of the story can be found in
JANUS MODEL AGAINST DARK SCIENCE.

But why this overwhelming silence
around articles published in serious journals?

Are you familiar
with the myth of
PANDORA'S BOX?

What do you
mean by that?

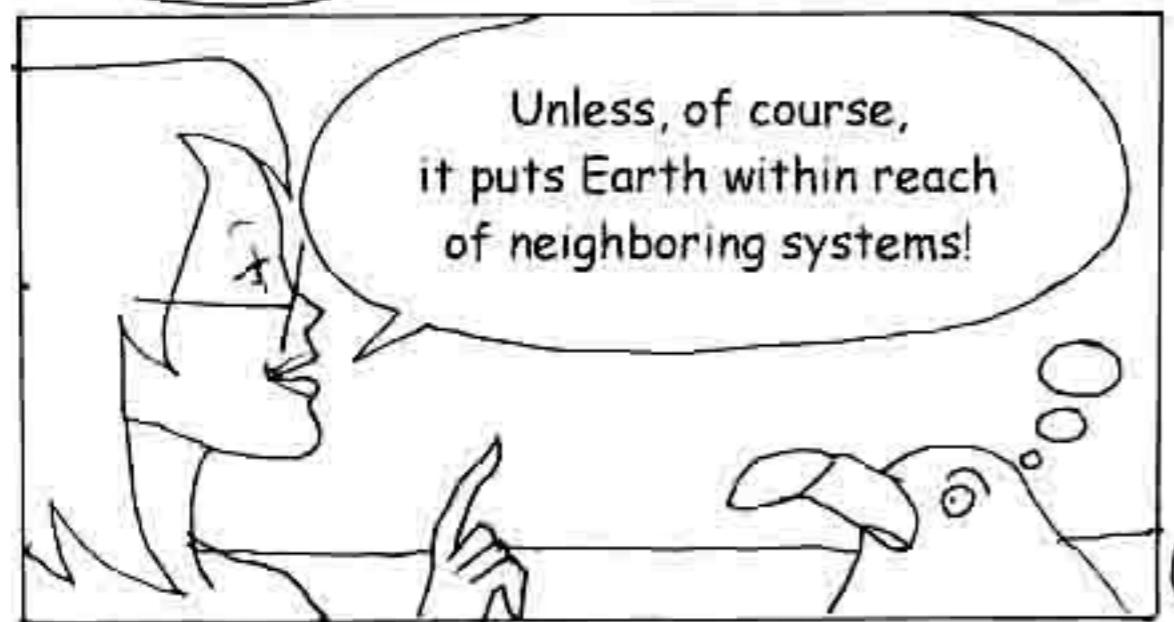
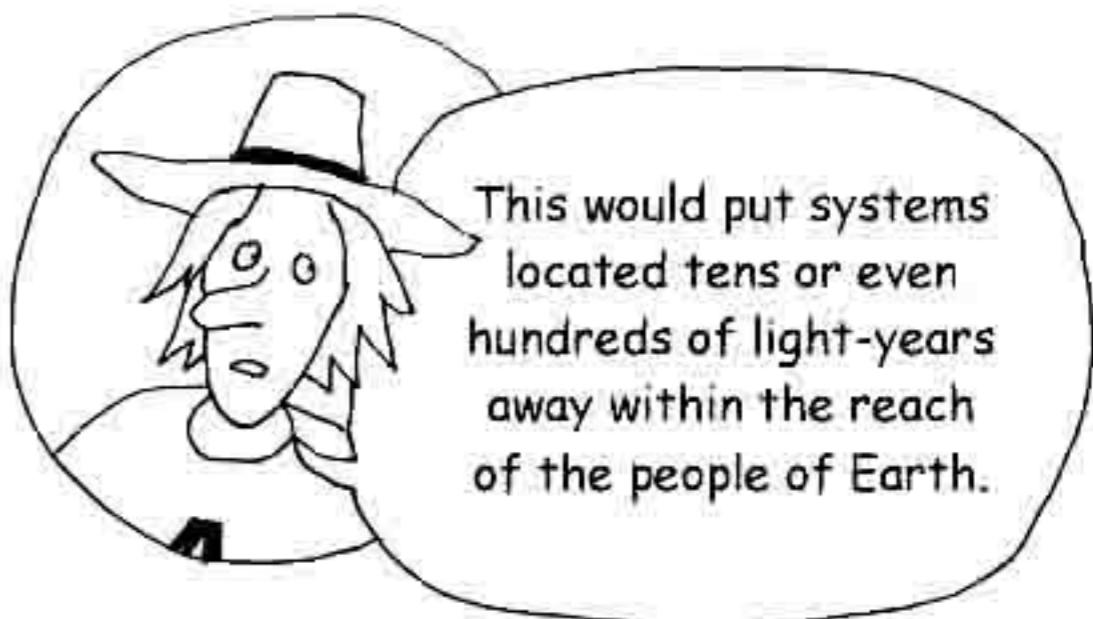
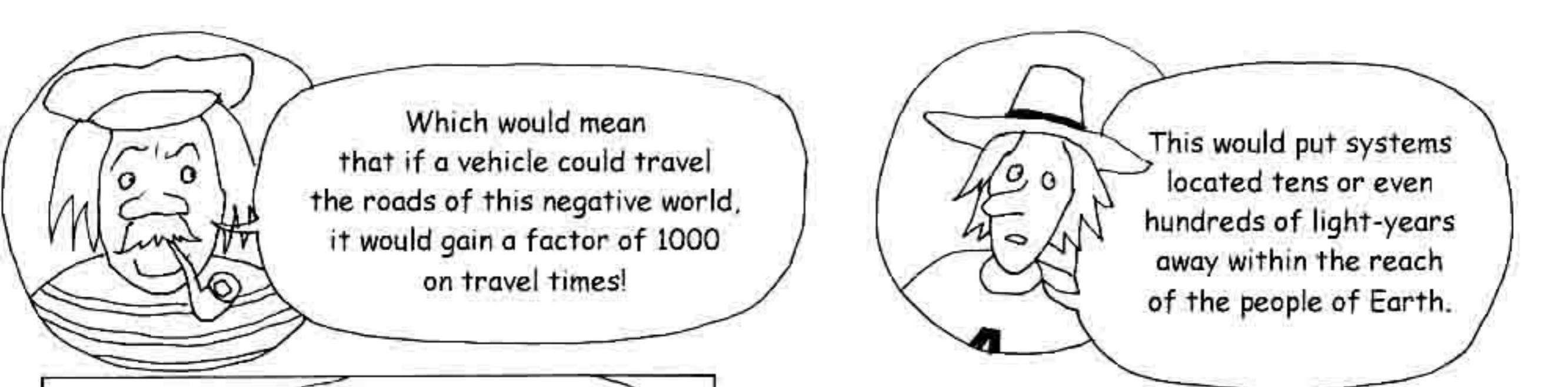
Let's stop running from reality!
You all know very well what is hidden beneath
the **JANUS COSMOLOGICAL MODEL!**

Those... negative masses?

You know very well that in this parallel universe
distances are 100 times shorter and that the
speed limit, that of photons with negative energy,
is 10 times that of our positive world!

Science
has become
boring.

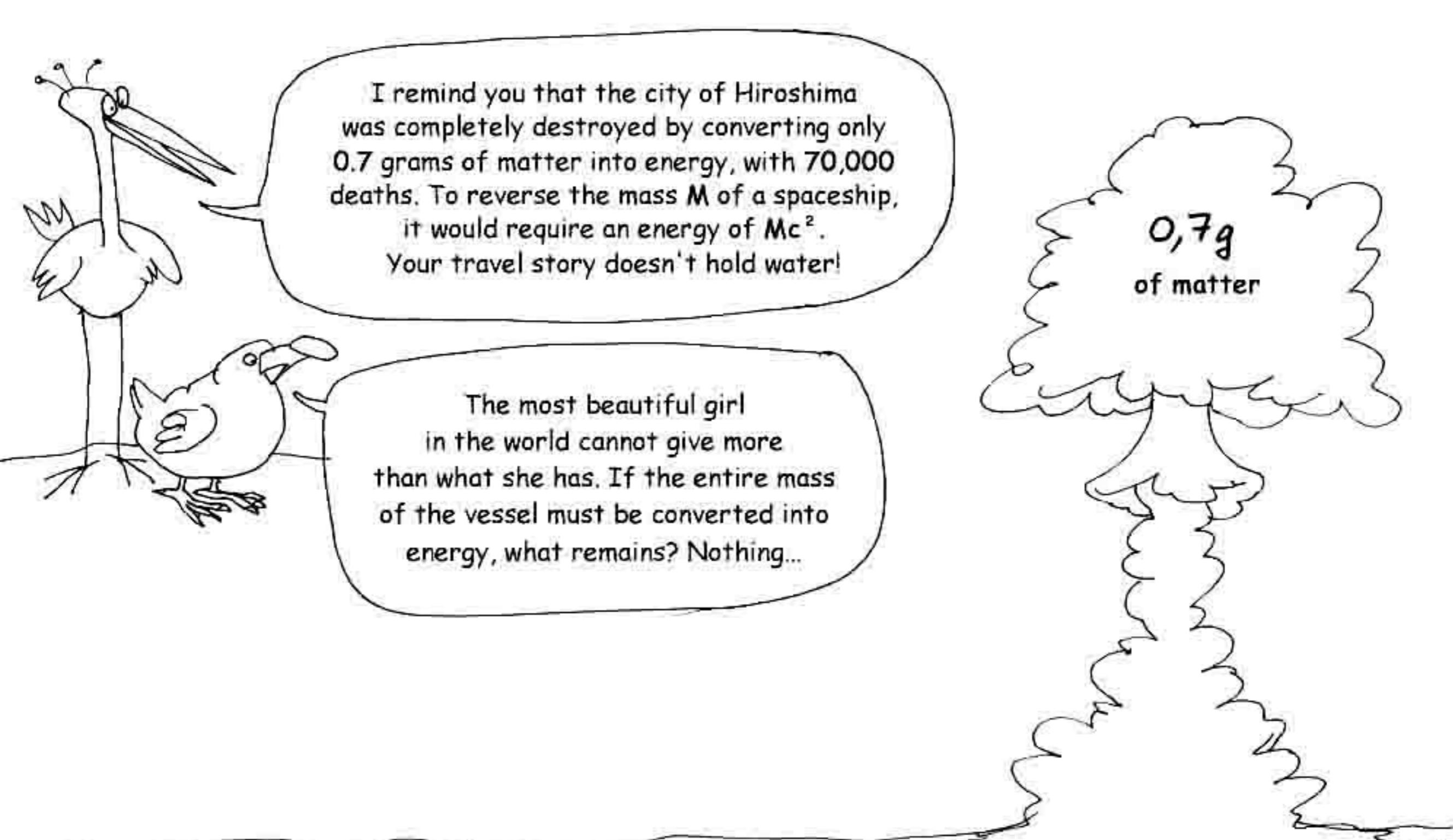
I don't think so.



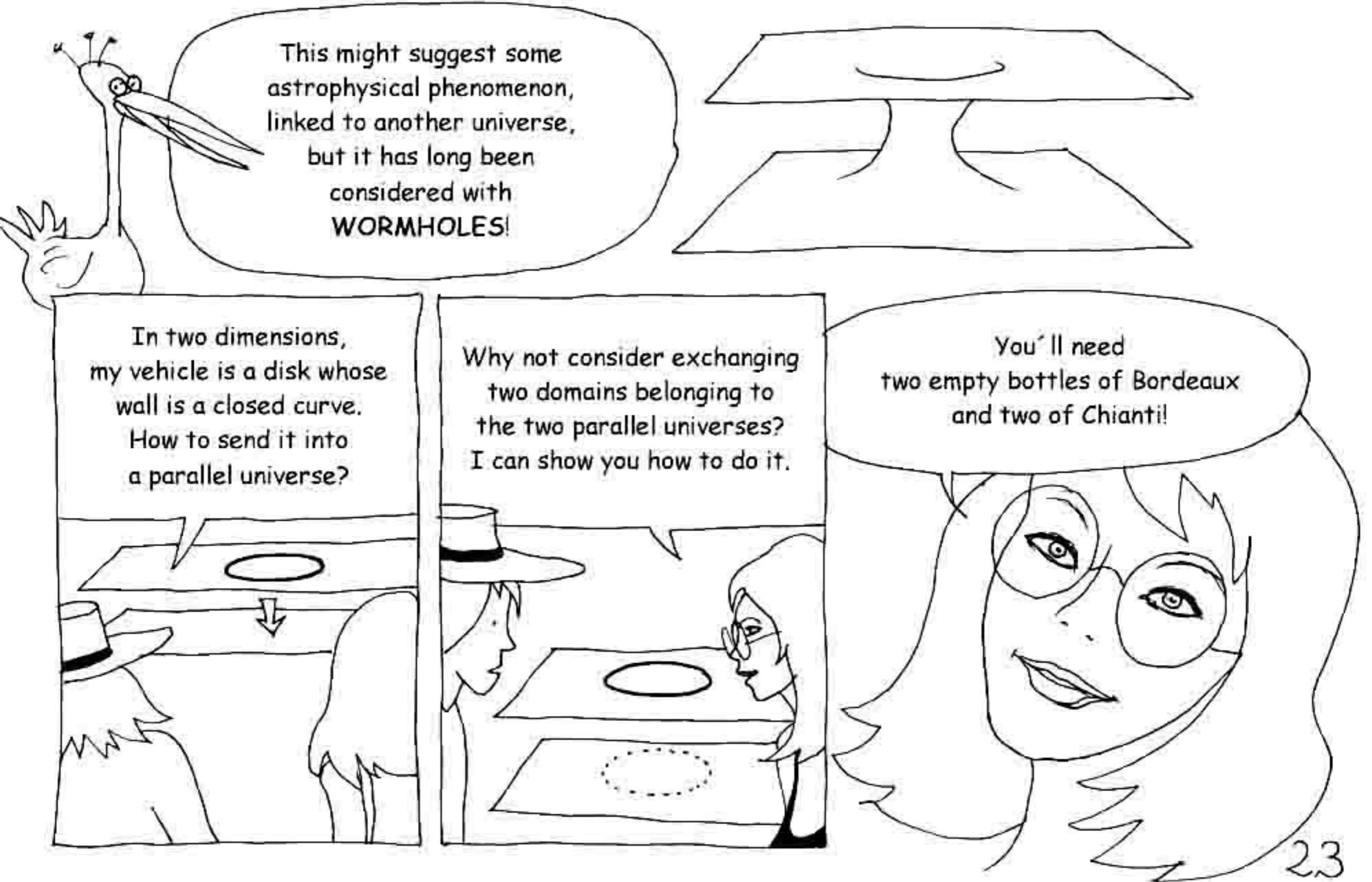
THE COSMIC FEAR

And that's what gives them all such a terrible fear!...

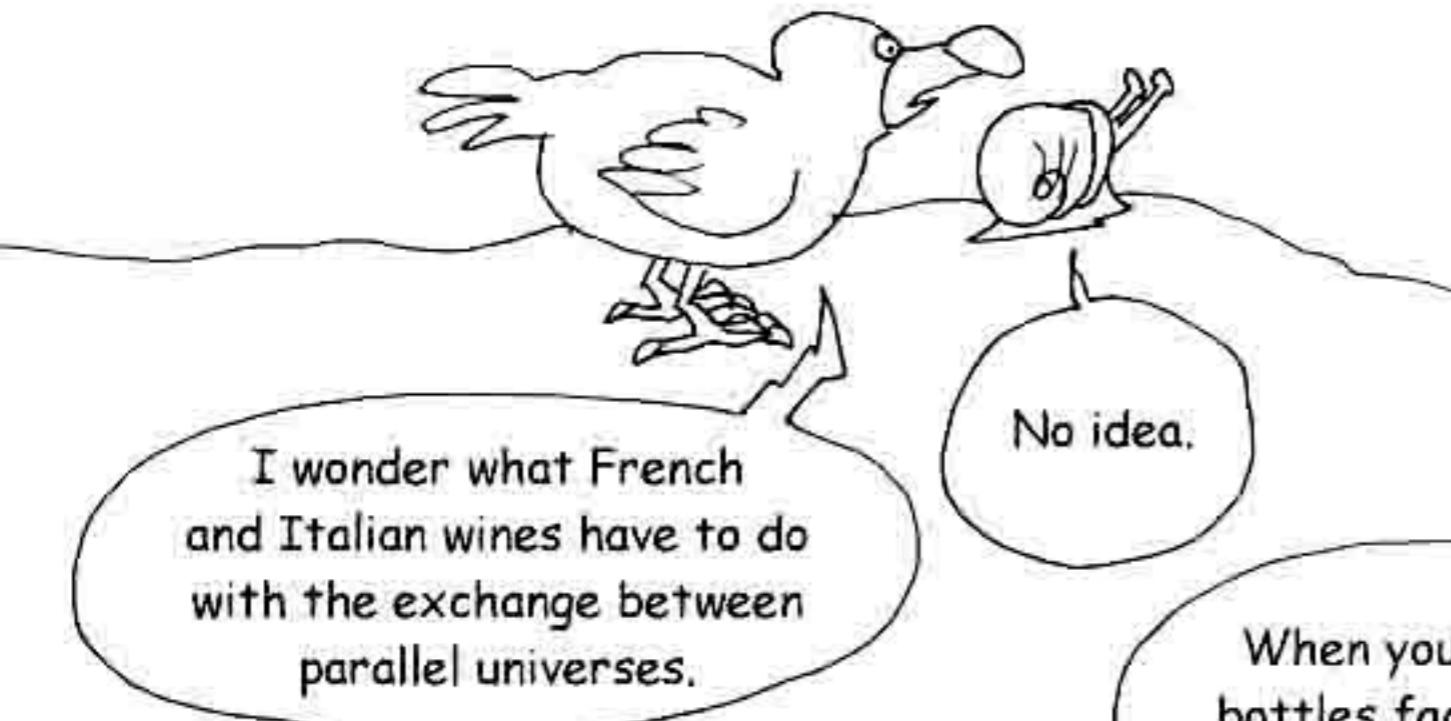




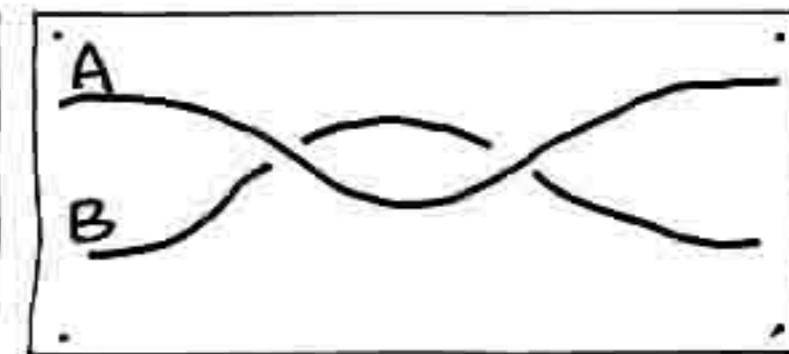
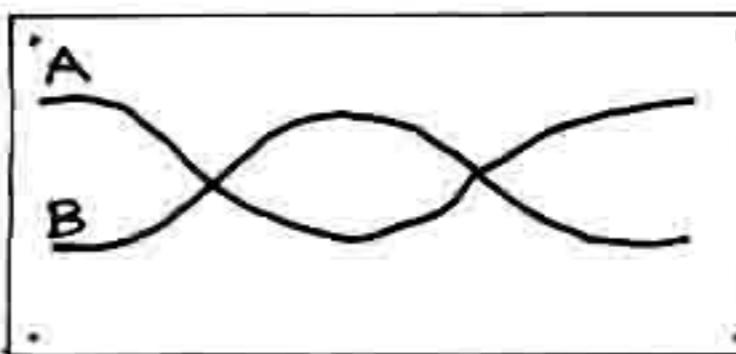
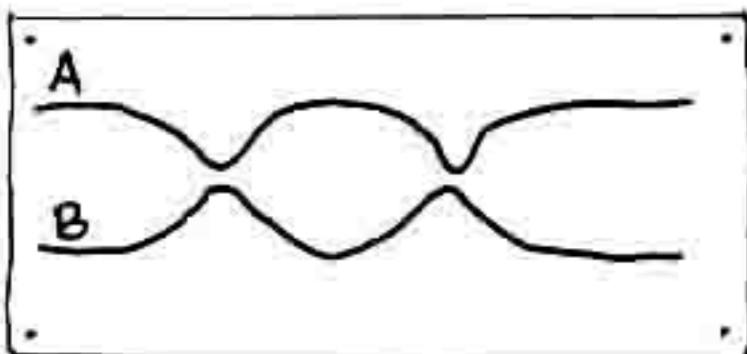
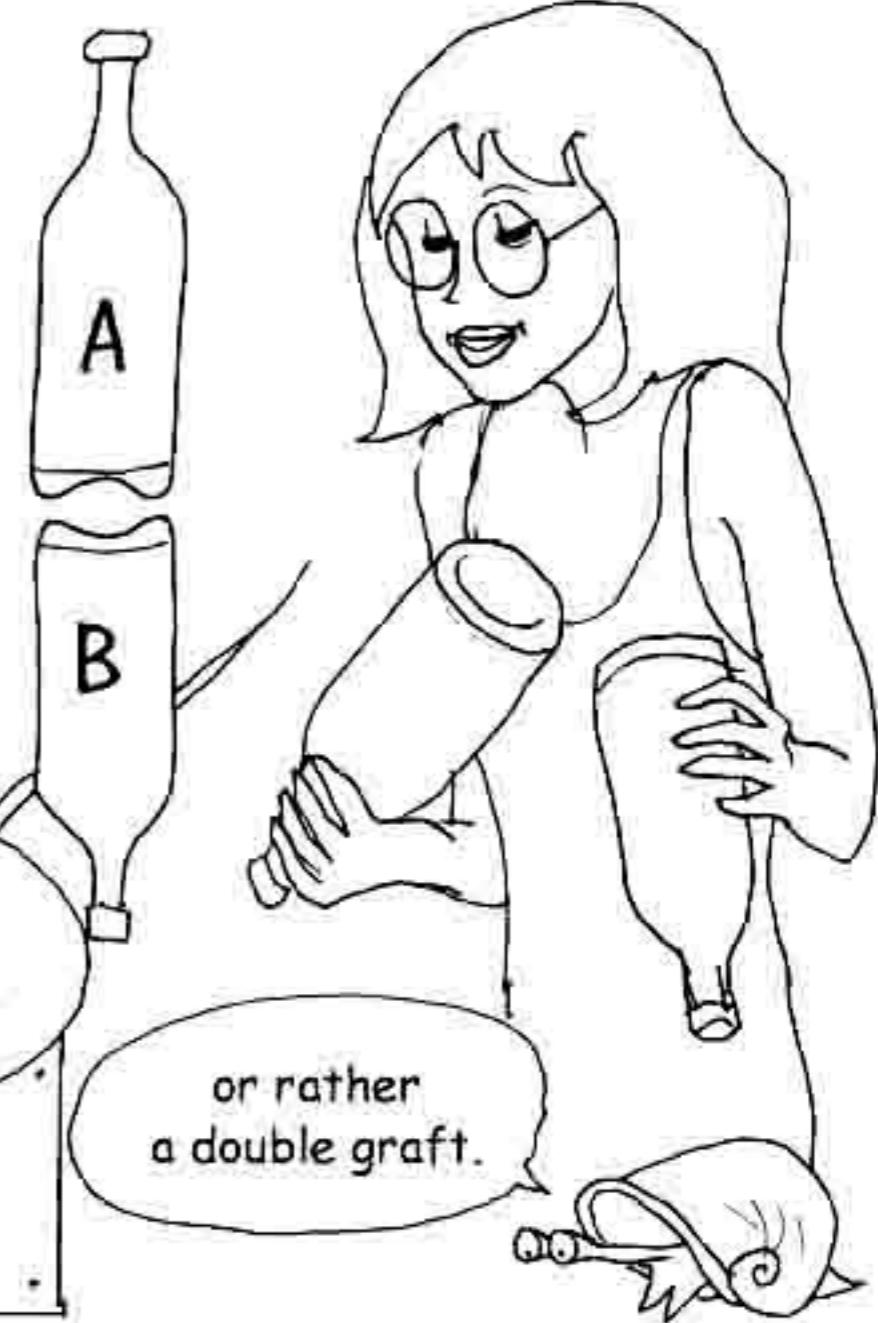
In the Hiroshima bomb, there were 64 kg of Uranium, including 51 kg of U235, fissile, and 13 kg of U238, non-fissile. Only 1.3% of U235 fissioned, that is 0.7 g, producing an energy of 6.27×10^{13} Joules. Since 1 ton of TNT represents 10 Joules, the energy of the Hiroshima bomb was therefore equivalent to 15,000 tons of TNT. Modern bombs have an efficiency of 25%.



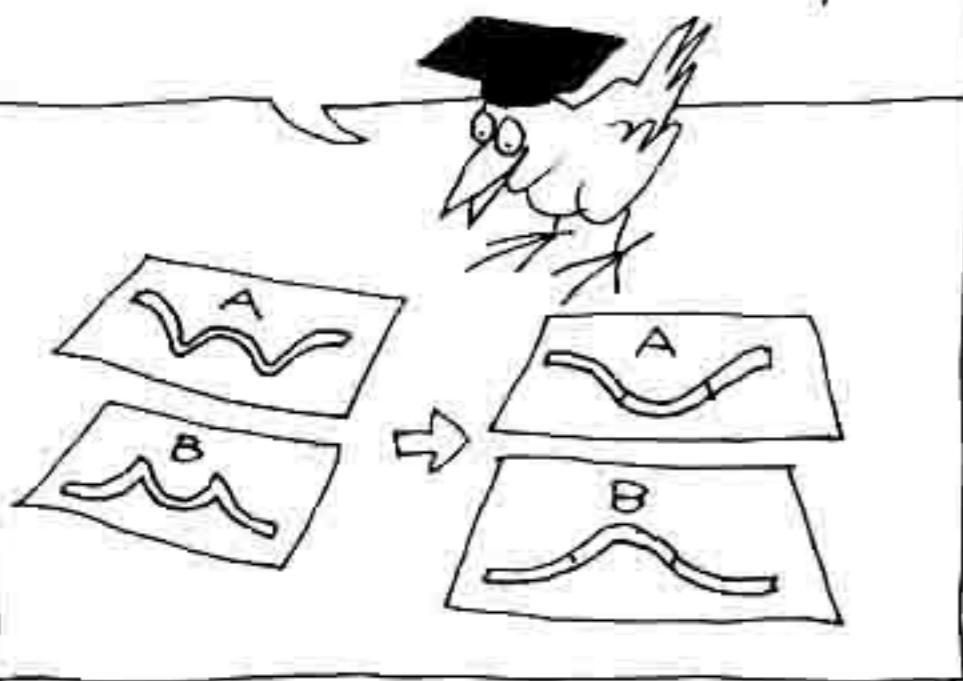
SURGERY



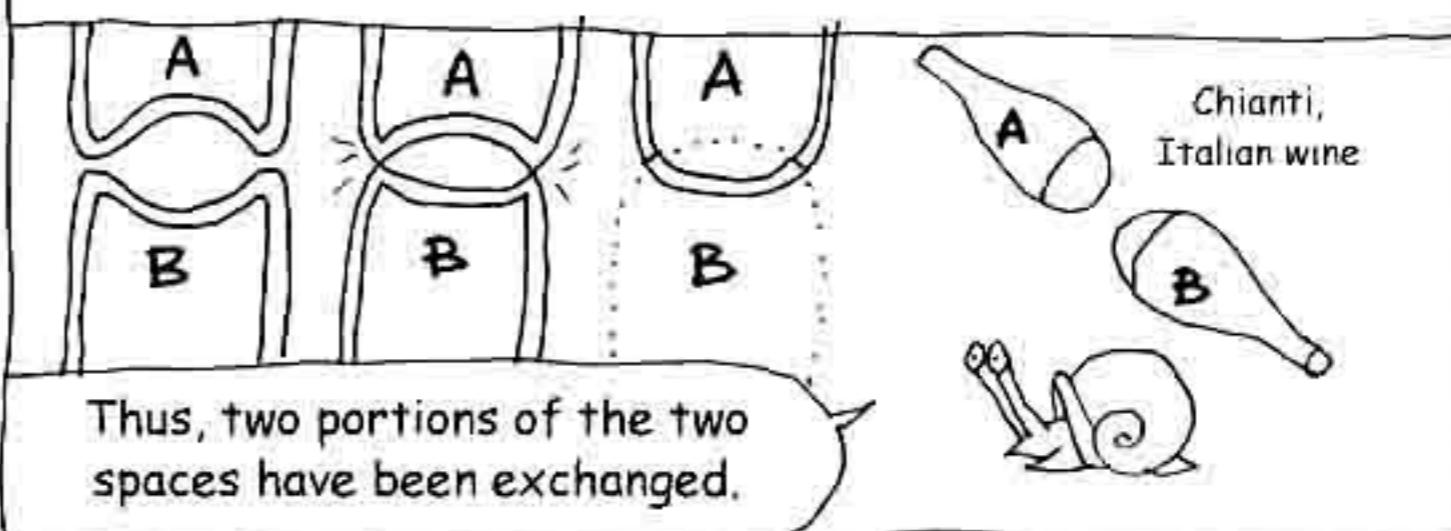
You get the deformation that must be given to two surfaces to prepare them to undergo what mathematicians call a **SURGERY**:



In 2D, the curves drawn on these two sheets then connect differently.

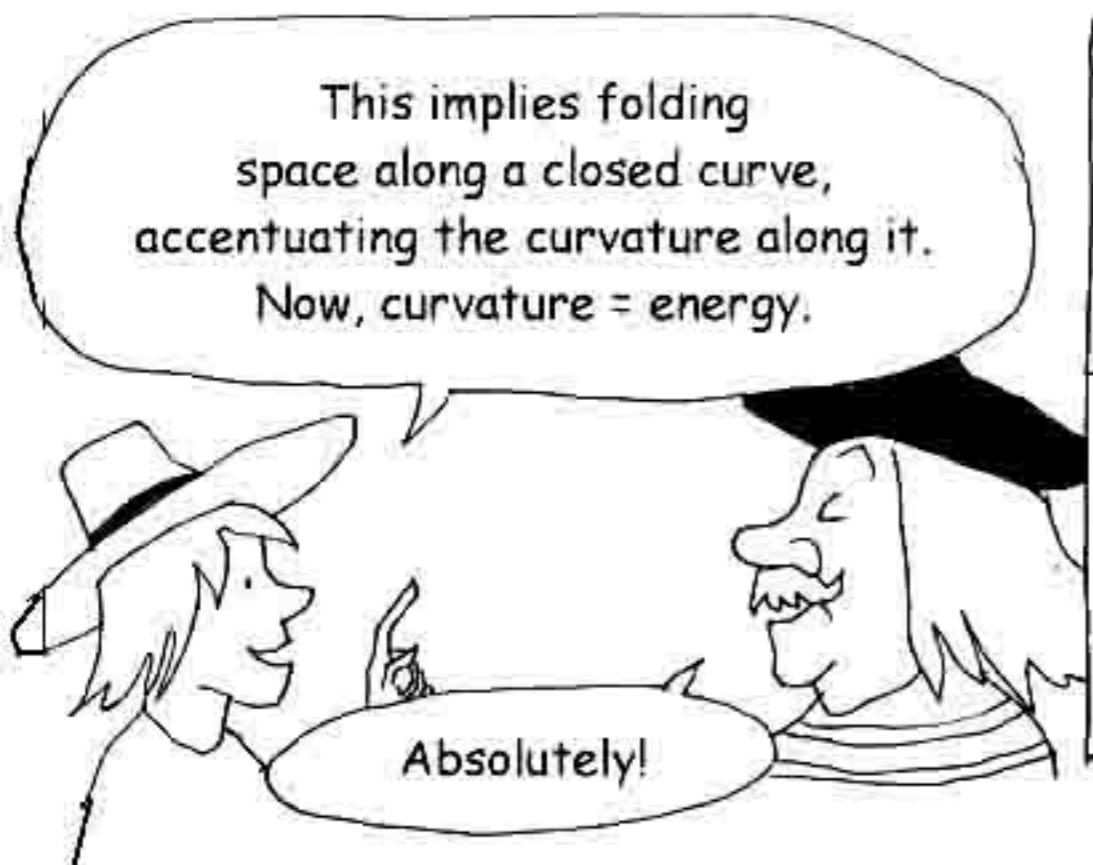


In 3D, it is the bottoms of the two bottles A and B that connect differently. The bottom of bottle A becomes that of bottle B, and vice versa. We get two bottles of CHIANTI.



This implies folding space along a closed curve, accentuating the curvature along it.

Now, curvature = energy.

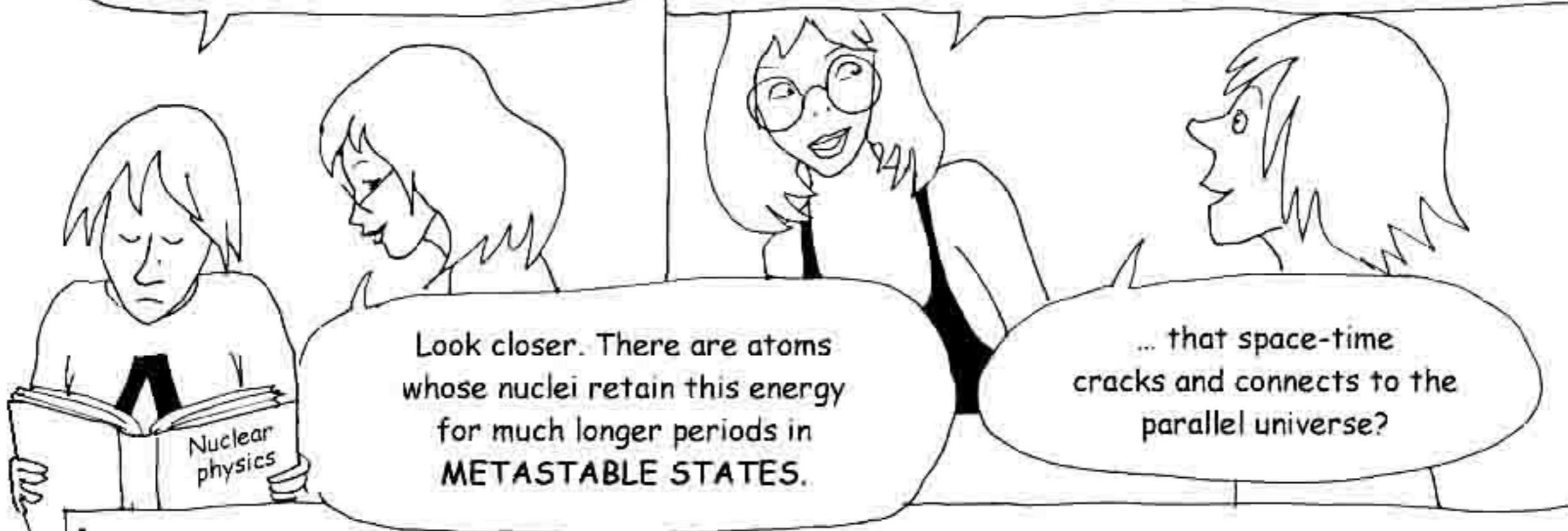


In other words, to send my 2D vehicle into the other space, by exchanging these two adjacent regions, I just need to concentrate energy in the vicinity of the closed curve representing the wall of my vessel.

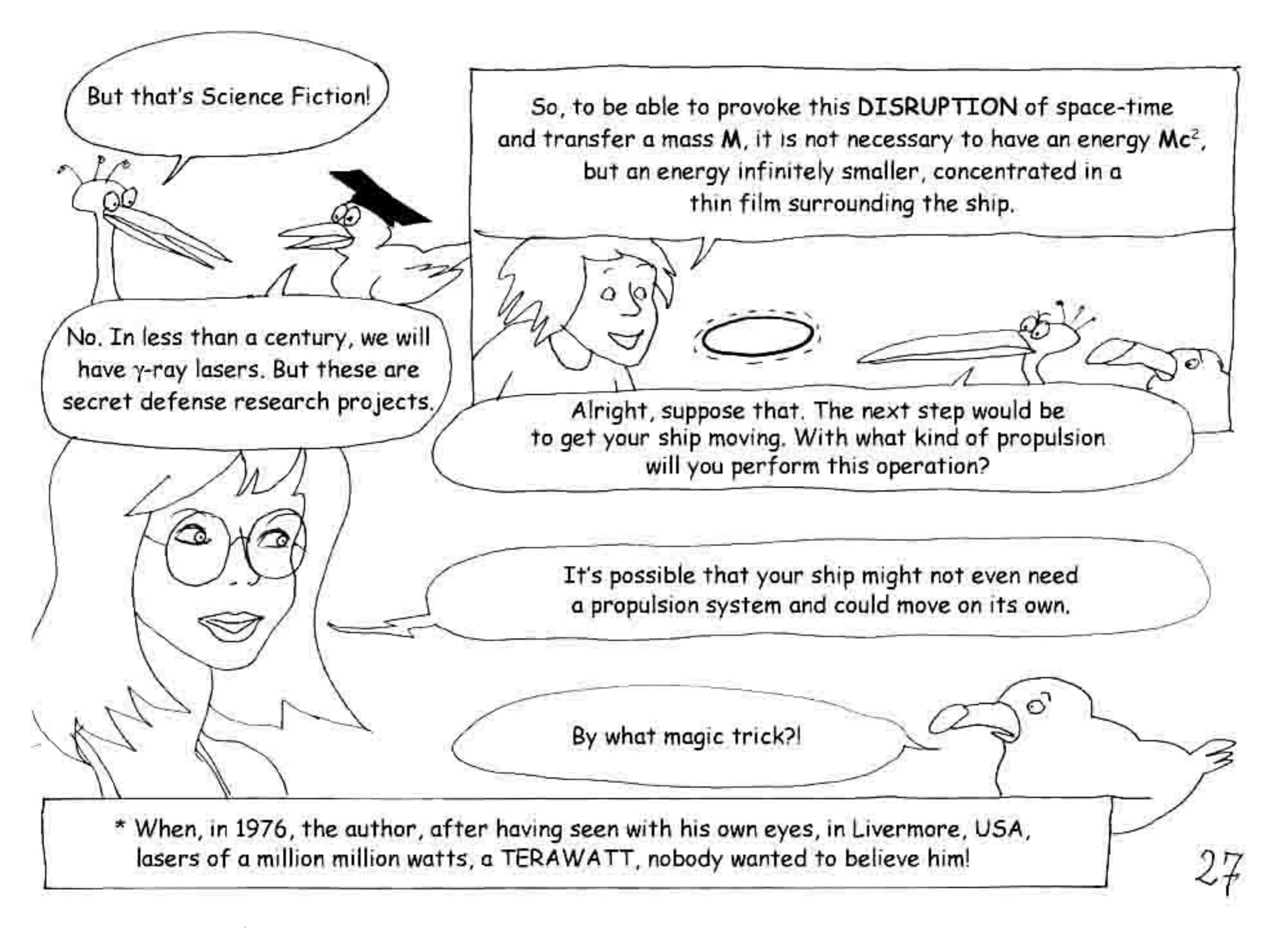


But if I supply energy to atomic nuclei by bombarding them with gamma rays, they will rush to release this energy through radiation in less than a billionth of a second. I will never succeed in stuffing them with energy.

There are plenty of isotopes with this property: Barium 137, Iron 57, Platinum 195 (*). So, if the hull of your ship is made of this material, you could charge it with energy by bombarding it with these gamma rays, until the energy concentration in that area becomes so high...



* Such excitation of the nuclei deforms them, giving them the shape of rugby balls. This phenomenon has nothing to do with NMR (nuclear magnetic resonance), where the magnetic moment of hydrogen nuclei, protons, is manipulated using microwaves, with incomparably lower energies, otherwise the patients would be 'cooked'.



But that's Science Fiction!

No. In less than a century, we will have γ -ray lasers. But these are secret defense research projects.

So, to be able to provoke this DISRUPTION of space-time and transfer a mass M , it is not necessary to have an energy Mc^2 , but an energy infinitely smaller, concentrated in a thin film surrounding the ship.

Alright, suppose that. The next step would be to get your ship moving. With what kind of propulsion will you perform this operation?

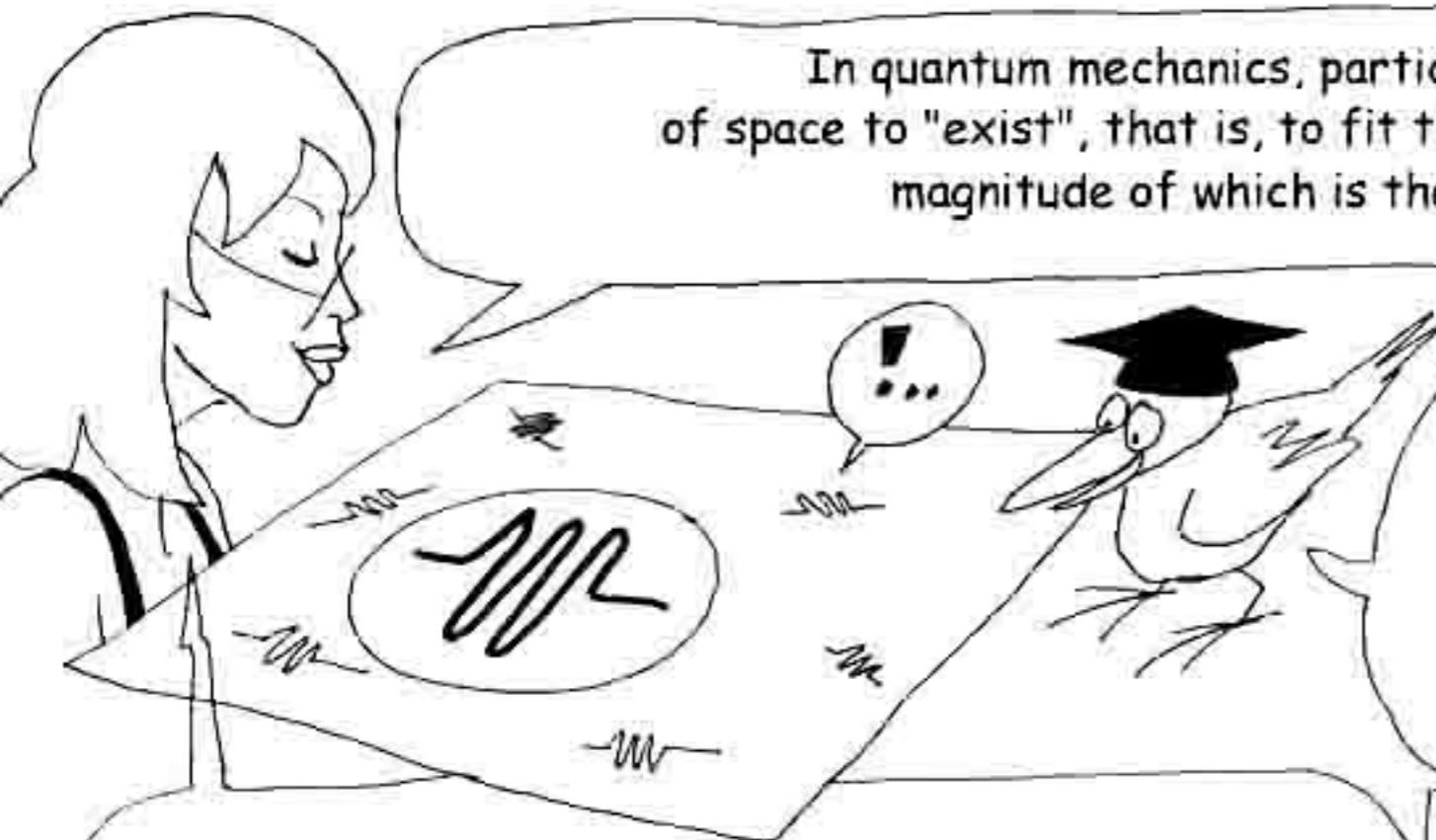
It's possible that your ship might not even need a propulsion system and could move on its own.

By what magic trick?

* When, in 1976, the author, after having seen with his own eyes, in Livermore, USA, lasers of a million million watts, a TERAWATT, nobody wanted to believe him!

THE GULLIVER EFFECT

In quantum mechanics, particles need a minimum amount of space to "exist", that is, to fit their "wave function," the order of magnitude of which is the "Compton wavelength" $\lambda = \frac{h}{mc}$



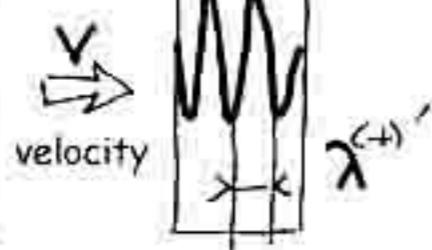
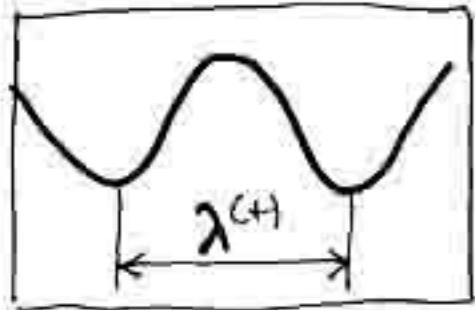
Thus, if a positive particle is transferred, grafted into the negative world as it is, it will be perceived as a "giant", a hundred times larger than the particles that inhabit it (*).

This would be synonymous with a non-conservation of energy. There is a solution for this: that the particle materializes at a relativistic speed, in which case its wave function will undergo a LORENTZ CONTRACTION:

$$\lambda_c^{(+)} = \lambda^{(+)} \sqrt{1 - \frac{v^2}{c^2}} \simeq \lambda_c^{(-)}$$



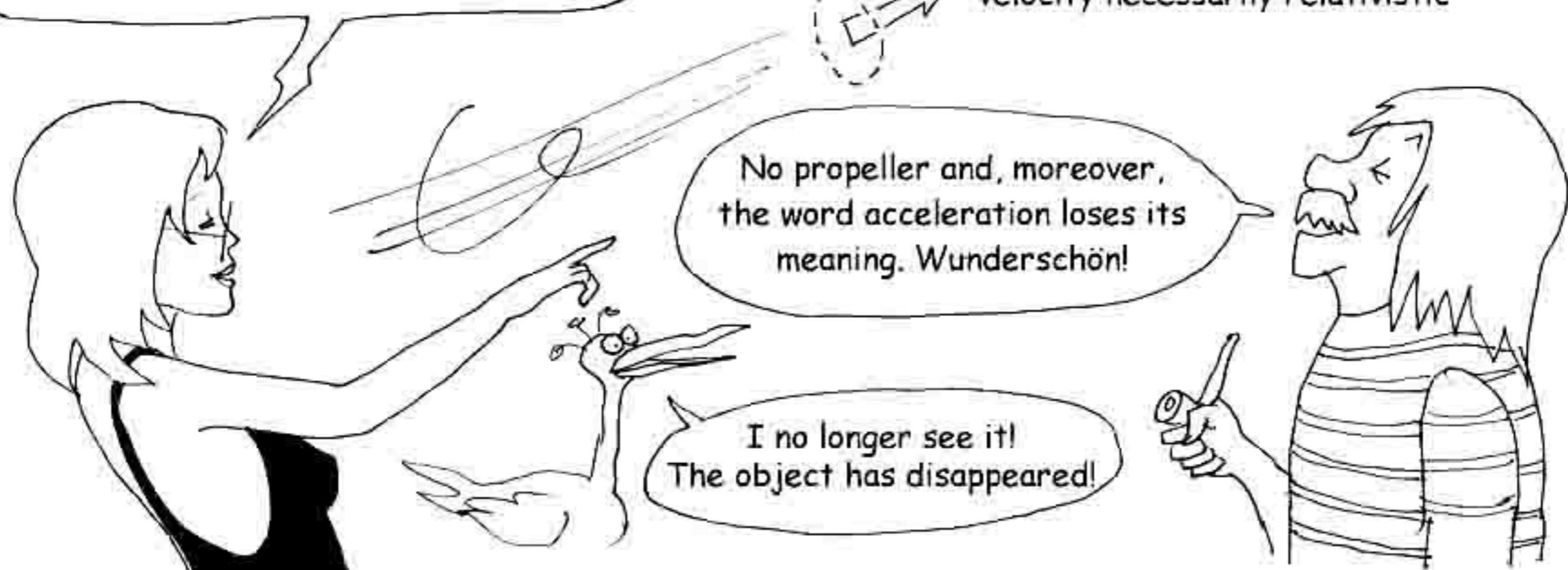
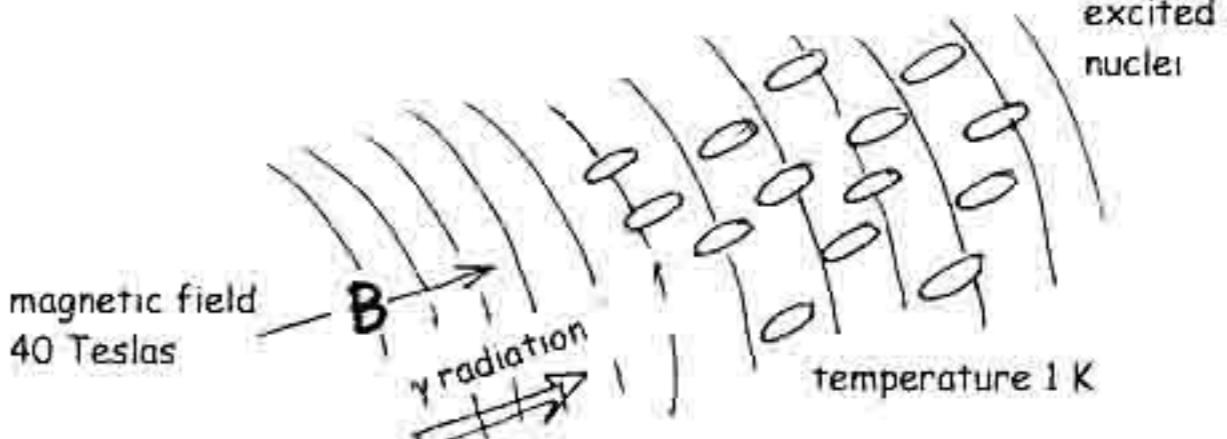
But there is a problem: these speeds will be randomly oriented in all directions. Your vehicle will explode immediately!

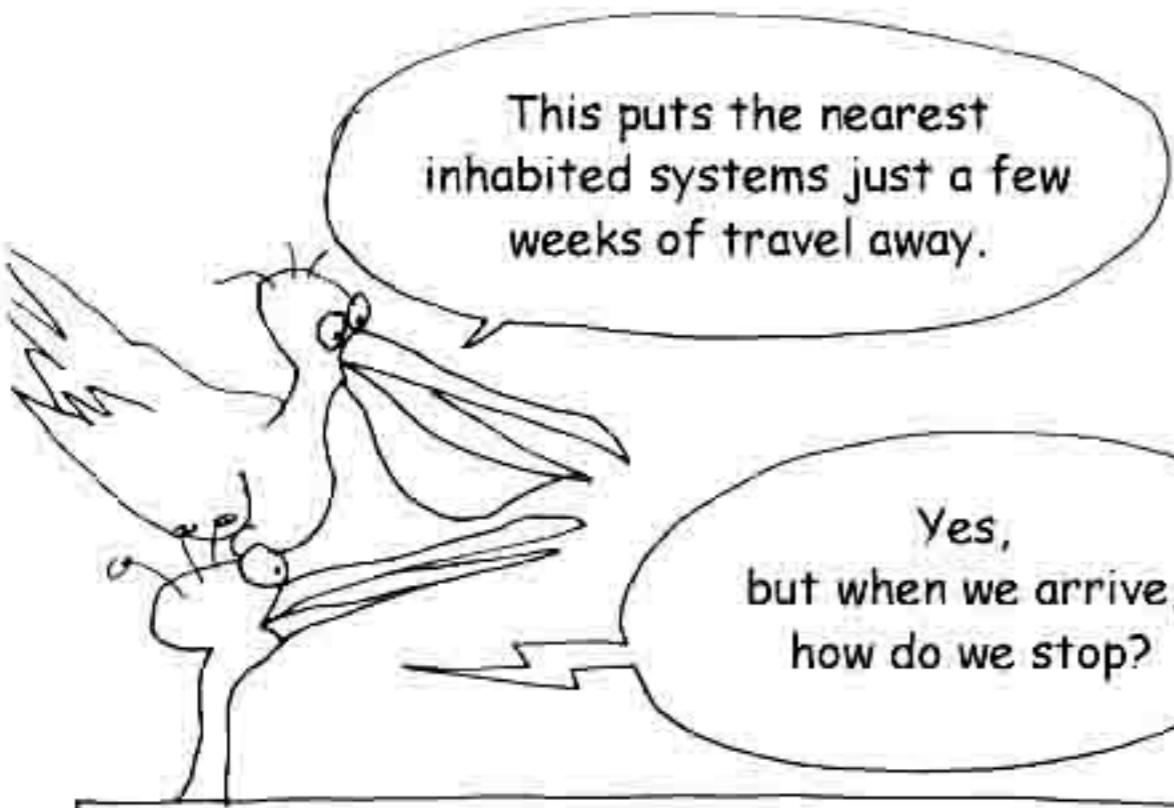


If energy is supplied to nuclei with a metastable excited state, if they are at low temperature and subjected to a strong magnetic field, all these nuclei will deform identically. They will be IN PHASE.

RELATIVISTIC LORENTZ CONTRACTION

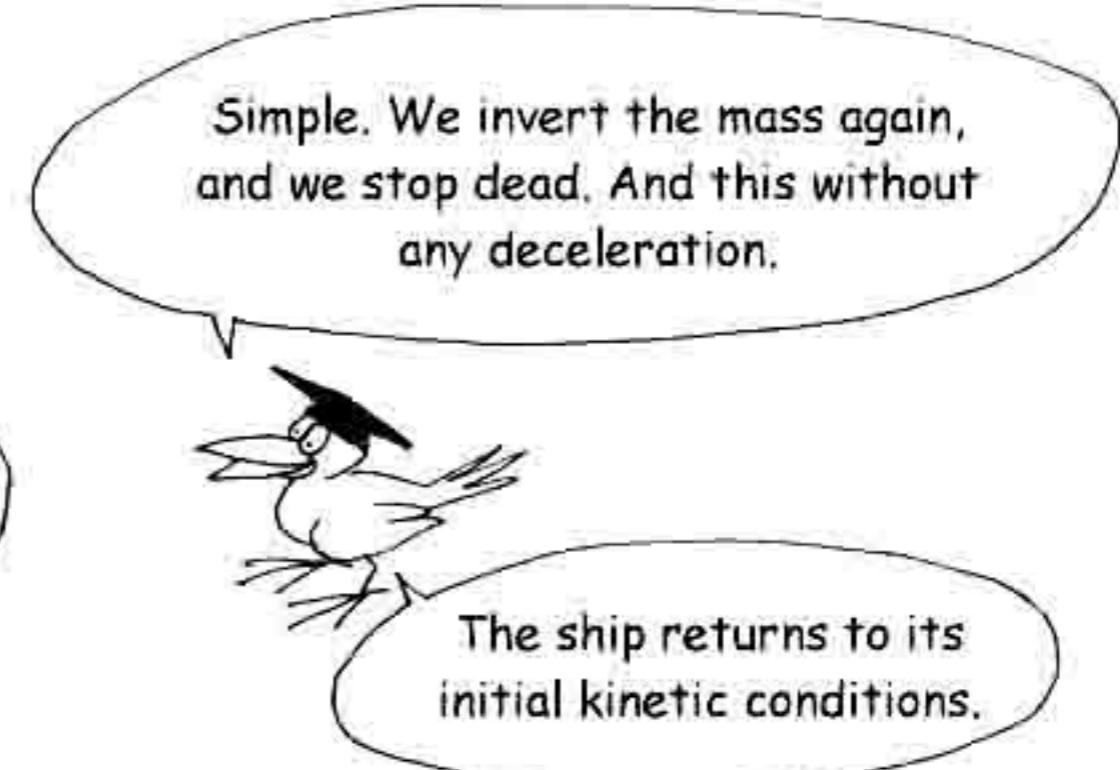
If the flux of γ radiation and the magnetic field are in the same direction, and the shell is at very low temperature, then all these relativistic velocity changes will occur in the same direction.





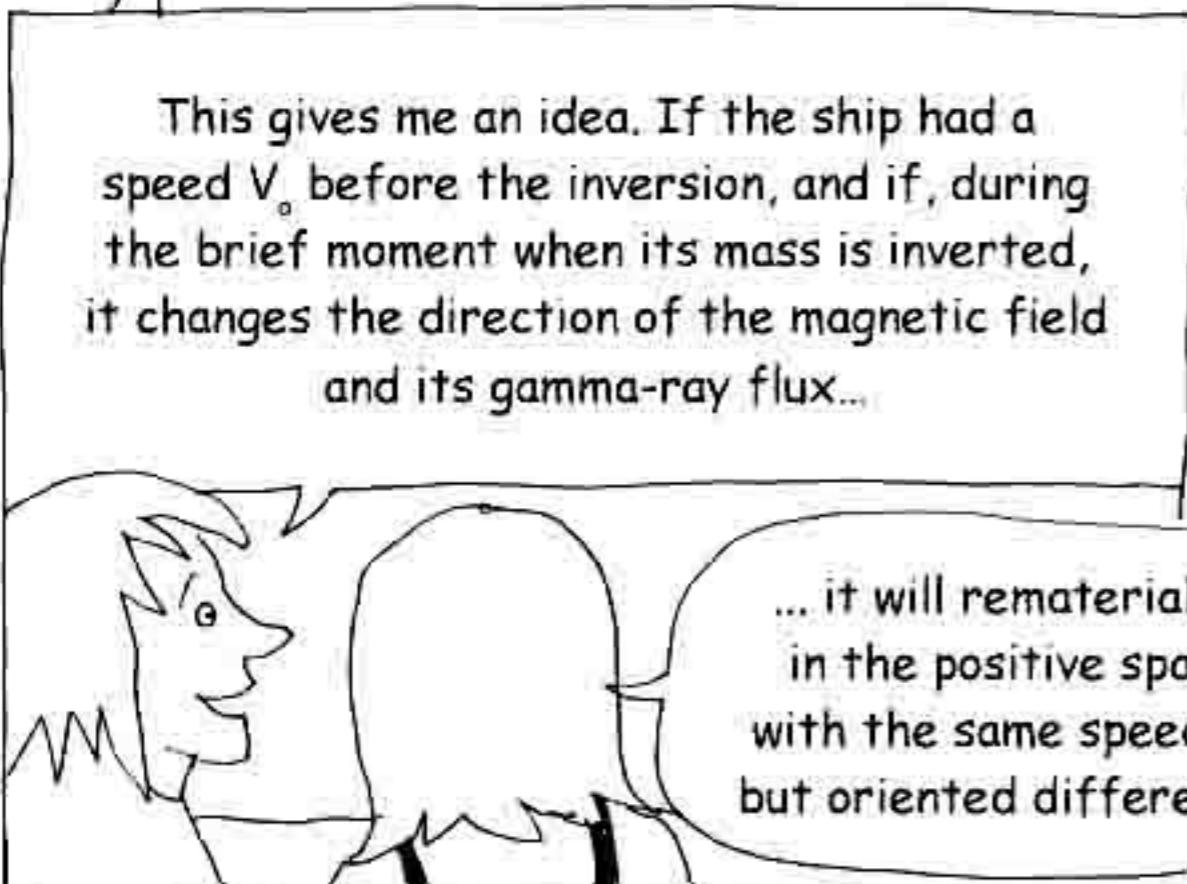
This puts the nearest inhabited systems just a few weeks of travel away.

Yes,
but when we arrive,
how do we stop?



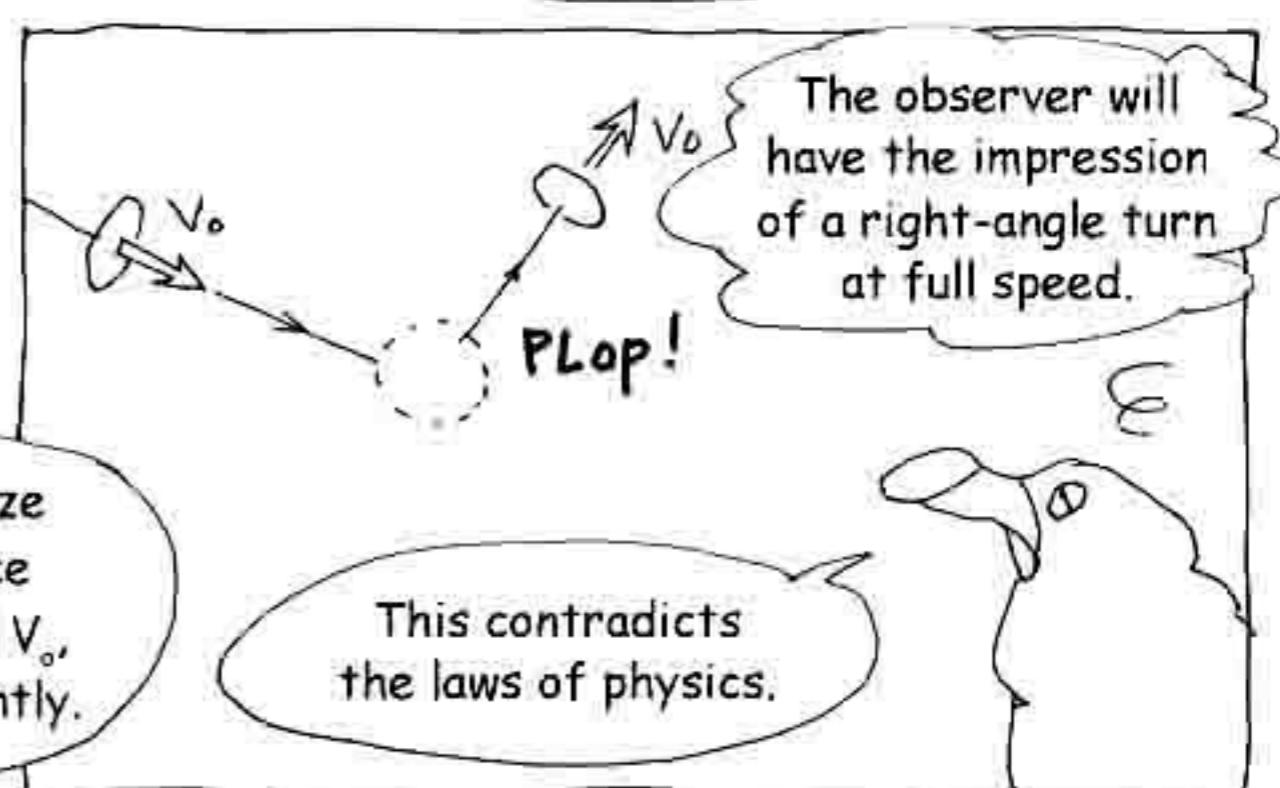
Simple. We invert the mass again,
and we stop dead. And this without
any deceleration.

The ship returns to its
initial kinetic conditions.



This gives me an idea. If the ship had a speed V_0 before the inversion, and if, during the brief moment when its mass is inverted, it changes the direction of the magnetic field and its gamma-ray flux...

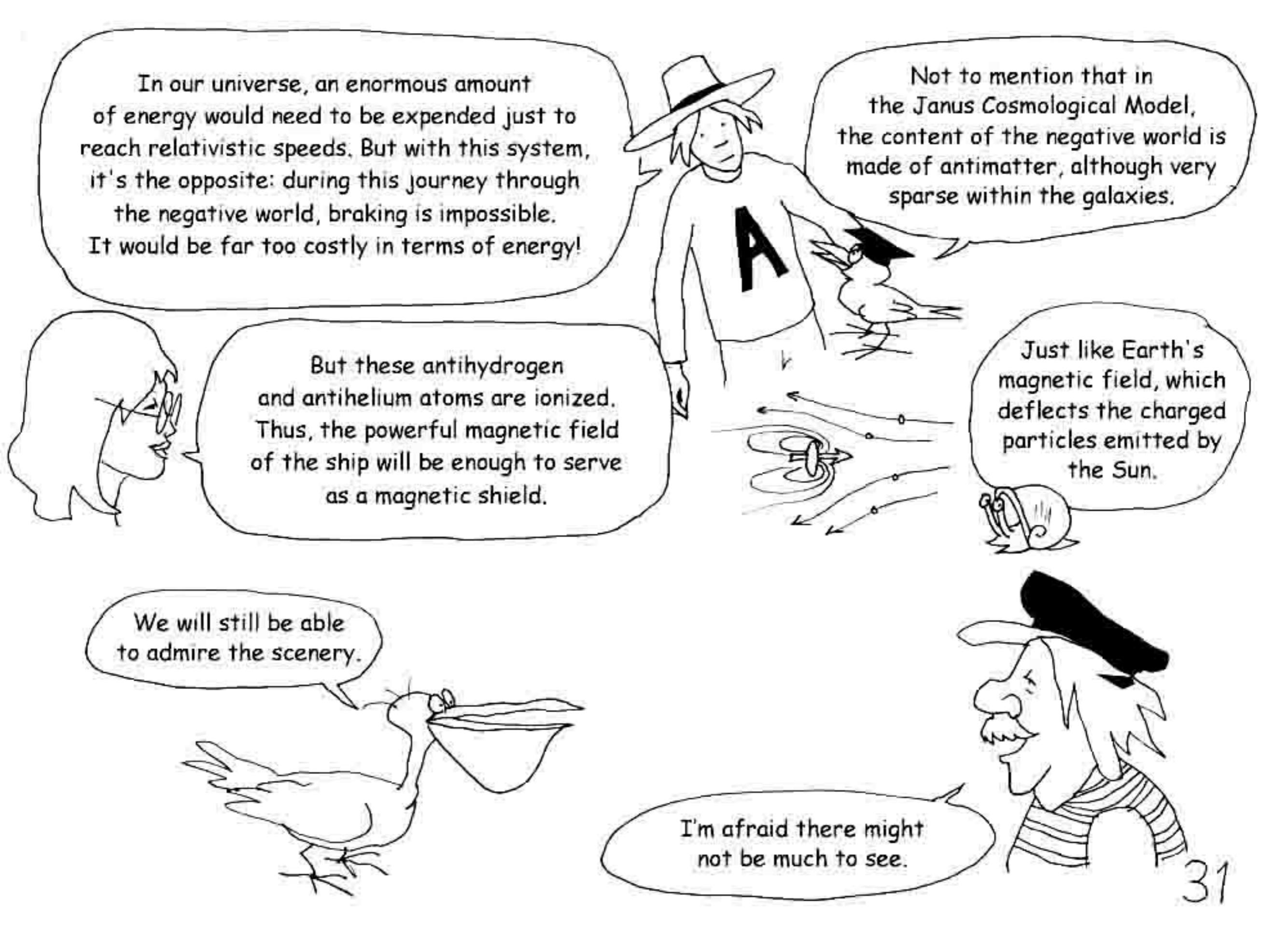
... it will rematerialize
in the positive space
with the same speed V_0 ,
but oriented differently.



The observer will
have the impression
of a right-angle turn
at full speed.

PLop!

This contradicts
the laws of physics.



In our universe, an enormous amount of energy would need to be expended just to reach relativistic speeds. But with this system, it's the opposite: during this journey through the negative world, braking is impossible. It would be far too costly in terms of energy!

Not to mention that in the Janus Cosmological Model, the content of the negative world is made of antimatter, although very sparse within the galaxies.



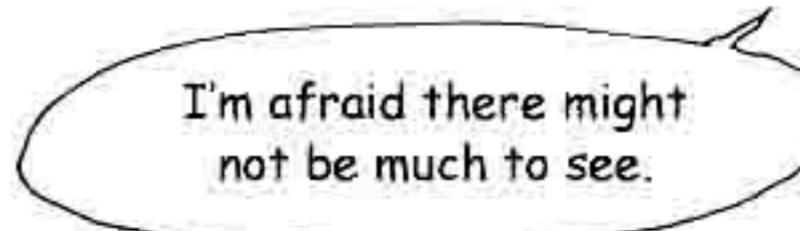
But these antihydrogen and antihelium atoms are ionized. Thus, the powerful magnetic field of the ship will be enough to serve as a magnetic shield.



Just like Earth's magnetic field, which deflects the charged particles emitted by the Sun.



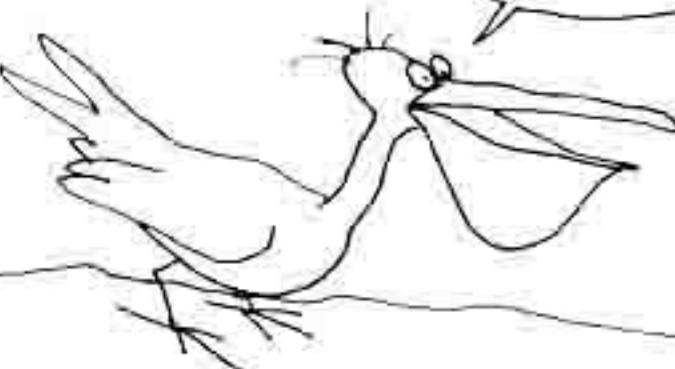
We will still be able to admire the scenery.



I'm afraid there might not be much to see.



Oh really,
and why?!



It's in "JANUS MODEL
VERSUS BLACK SCIENCE".
They are vast conglomerates of
negative mass, which emit in
the red and infrared.

JANUS MODEL
versus
BLACK SCIENCE



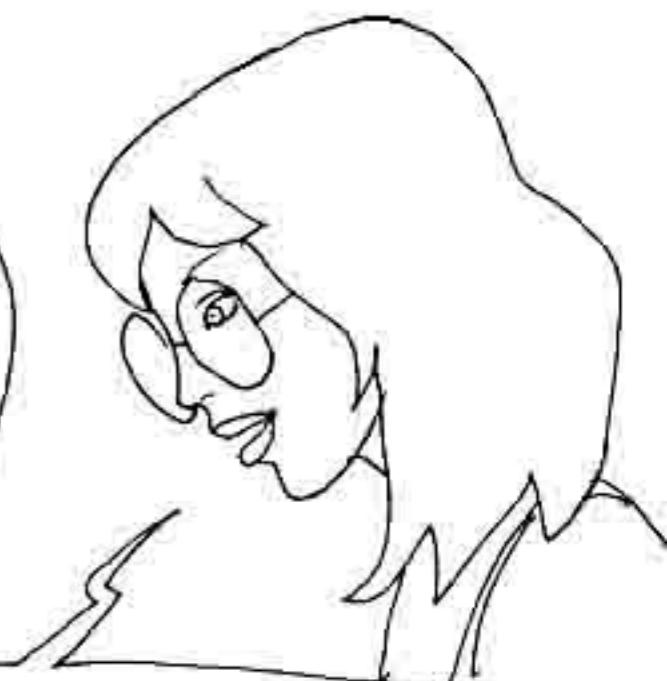
So what?

In this negative world, no galaxies, no stars,
and no atom more complex than hydrogen and
helium are formed. So no planets and no LIFE.

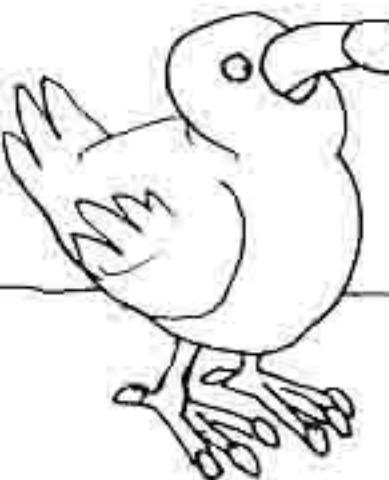
WASTE DISPOSAL



There is still something extremely interesting even in the absence of the magnetic field that directs velocity vectors. So: if we overload the shell with energy, by causing the mass of everything inside to invert, we can get rid of all waste, right?



The Janus space has 10 dimensions: one dimension of time, three of space, the other six are of a quantum nature. Inverting mass means acting on the time dimension, inverting it. But, one day, inevitably, you will find out how to invert these other six dimensions.



Well,
so what?

This means that we will
know how to transform matter
into antimatter.



Amazing! With mass inversion,
we get rid of all waste. With the inversion
of quantum dimensions, we'll have energy
and wonder what to do with it.

It's the Golden Age!

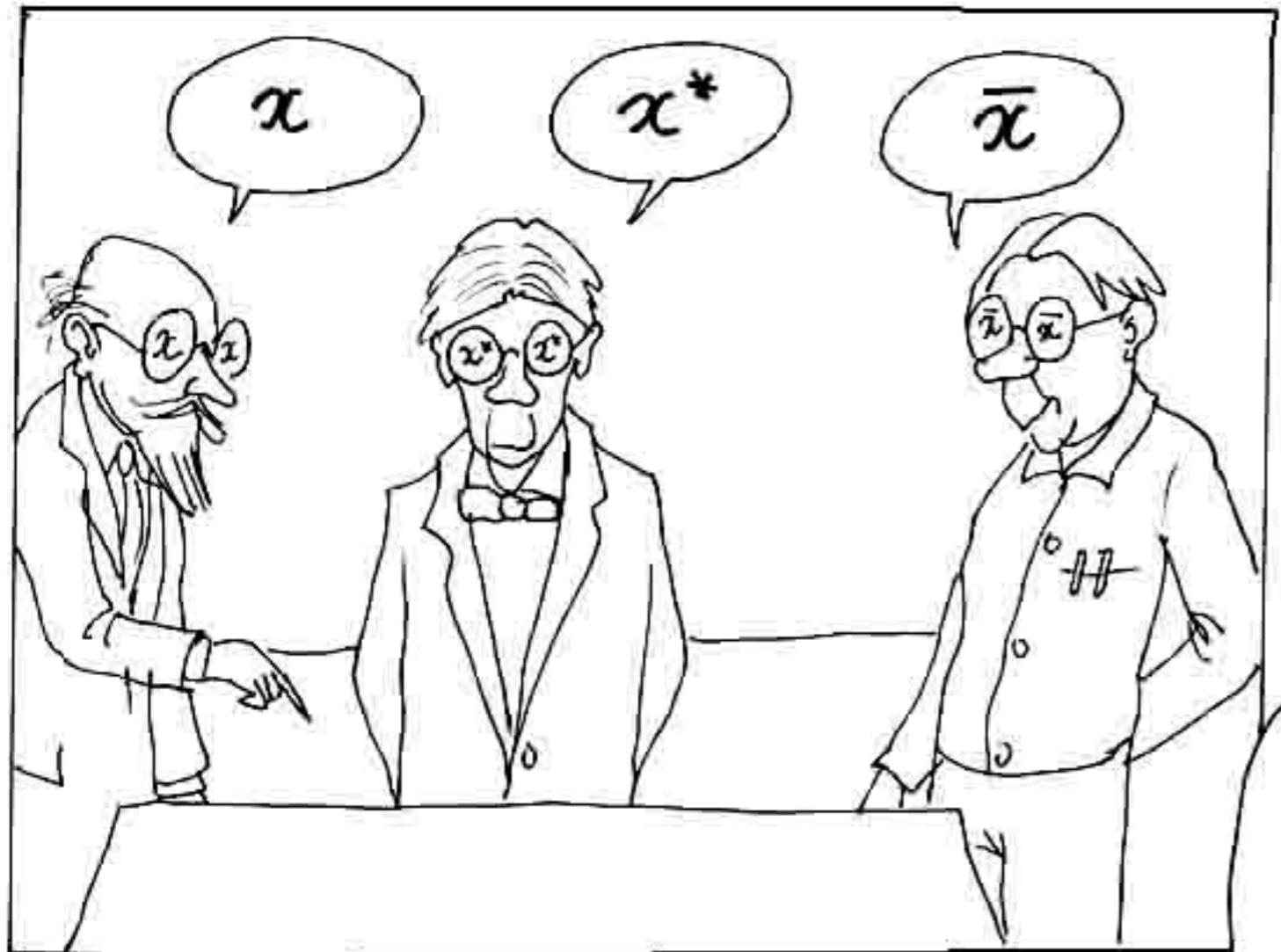
This JANUS
COSMOLOGICAL MODEL
is really a definitive
vision of things!

You know, this grasp on things comes and goes.
I wouldn't be surprised if one day another model
appears, sending the JANUS MODEL
to the antique shelf!

To that extent!

Reality is like
a prey that runs away
as soon as you hold it
too tightly.

Interesting.

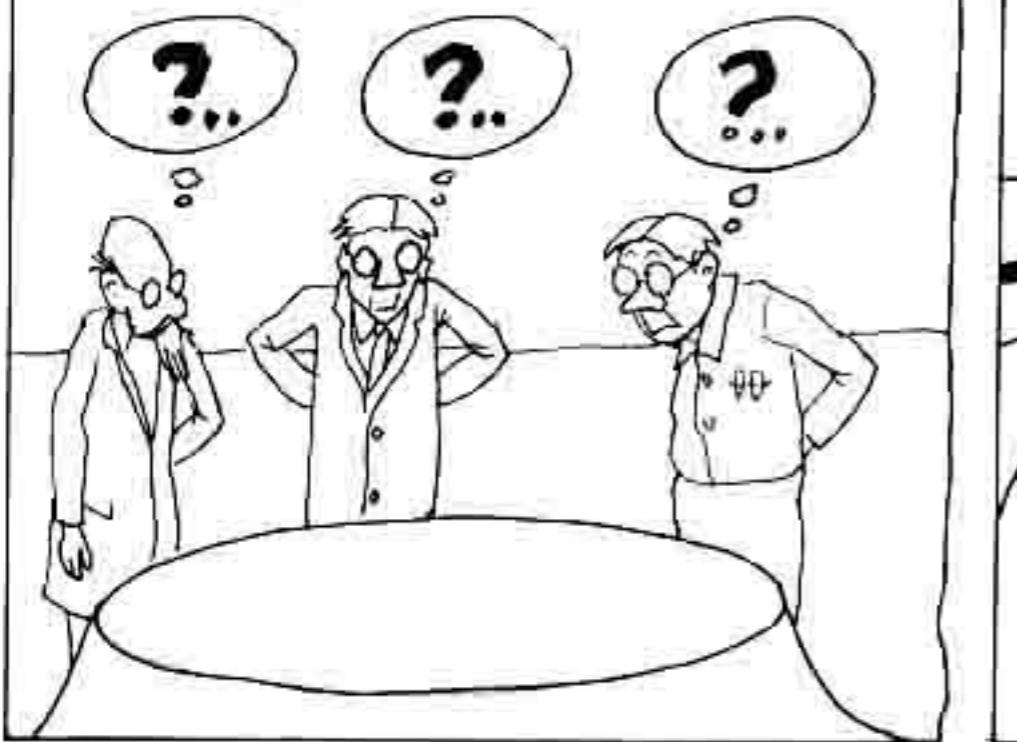


Imagine three scientists equipped with different conceptual tools, whether theoretical or experimental. Each is convinced that his own view of things is the correct one.

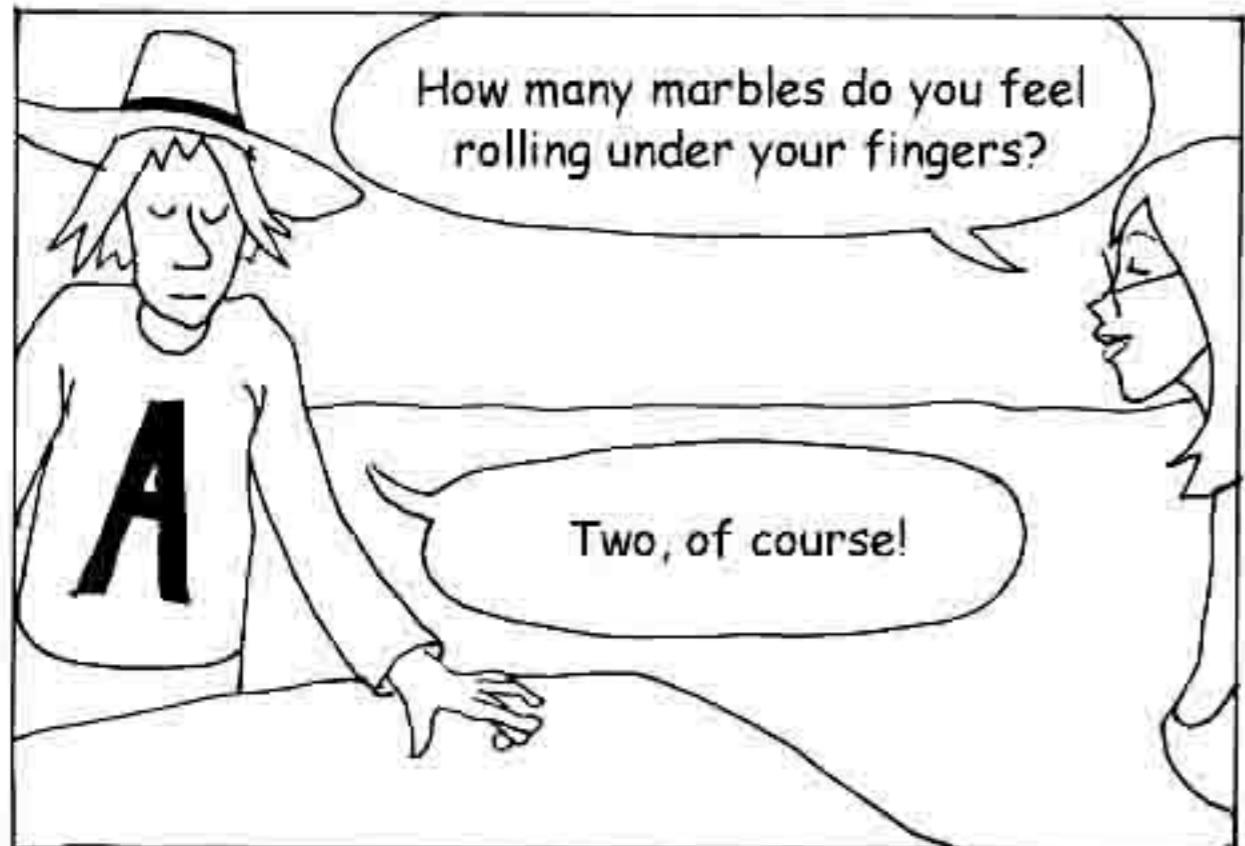
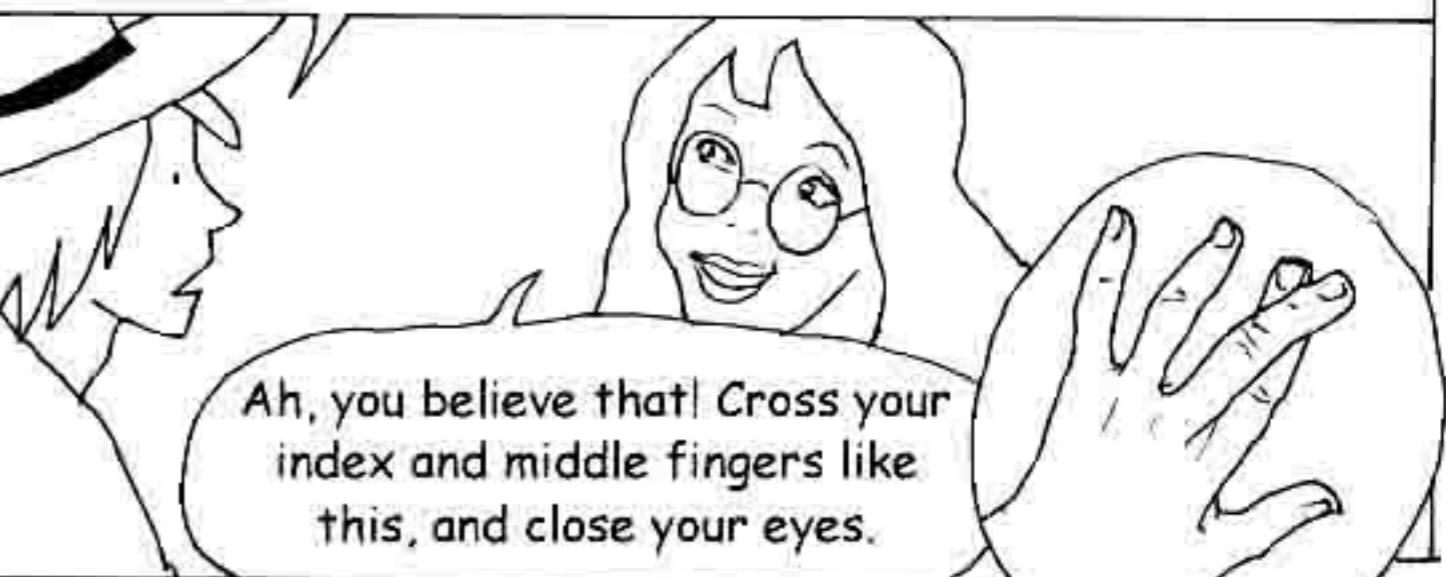


Then comes a clever little fellow, who sells them "absolute conceptual glasses", directly connected to reality. They each buy a pair, put them on their noses, and...

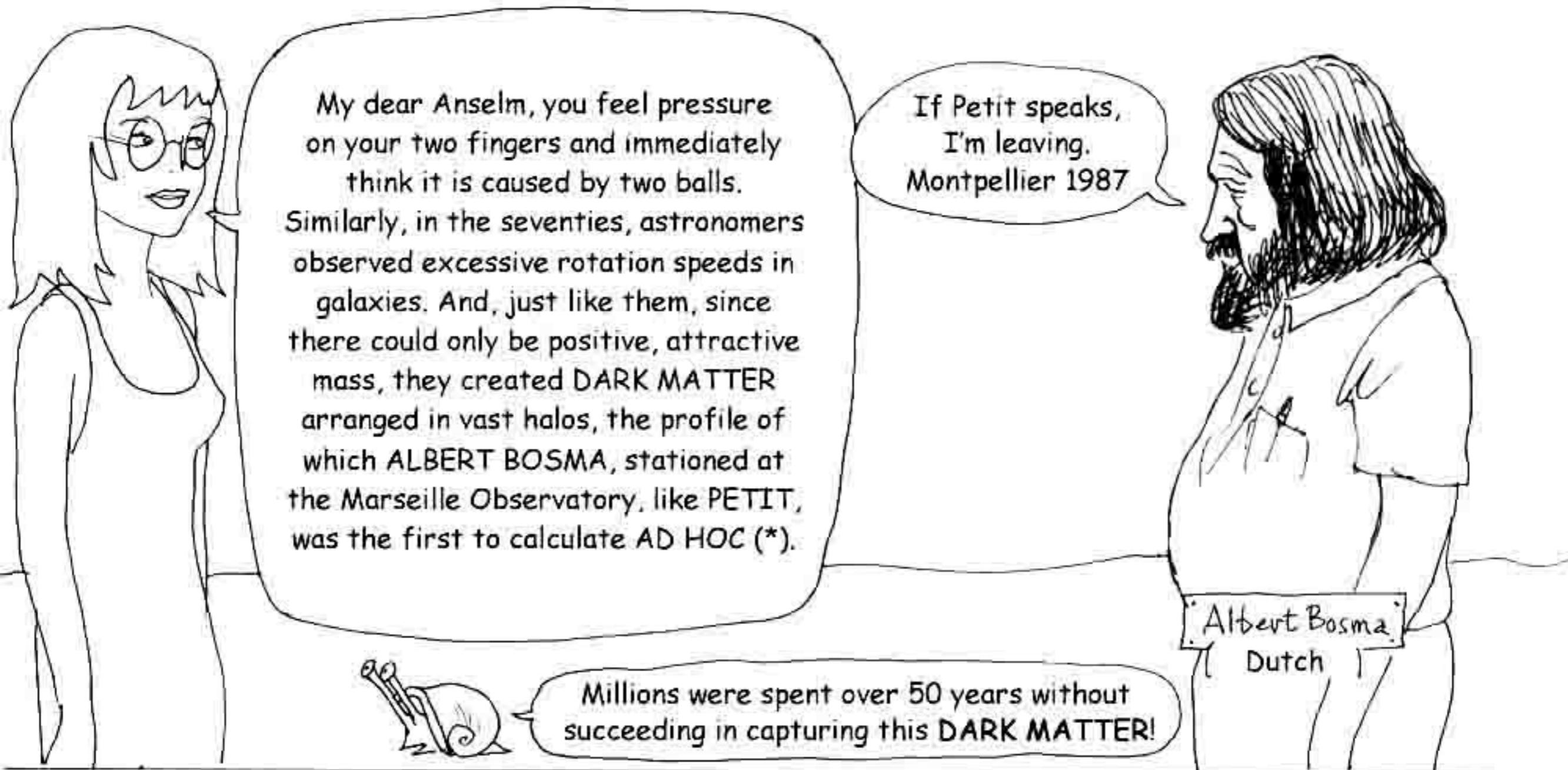
What they see:



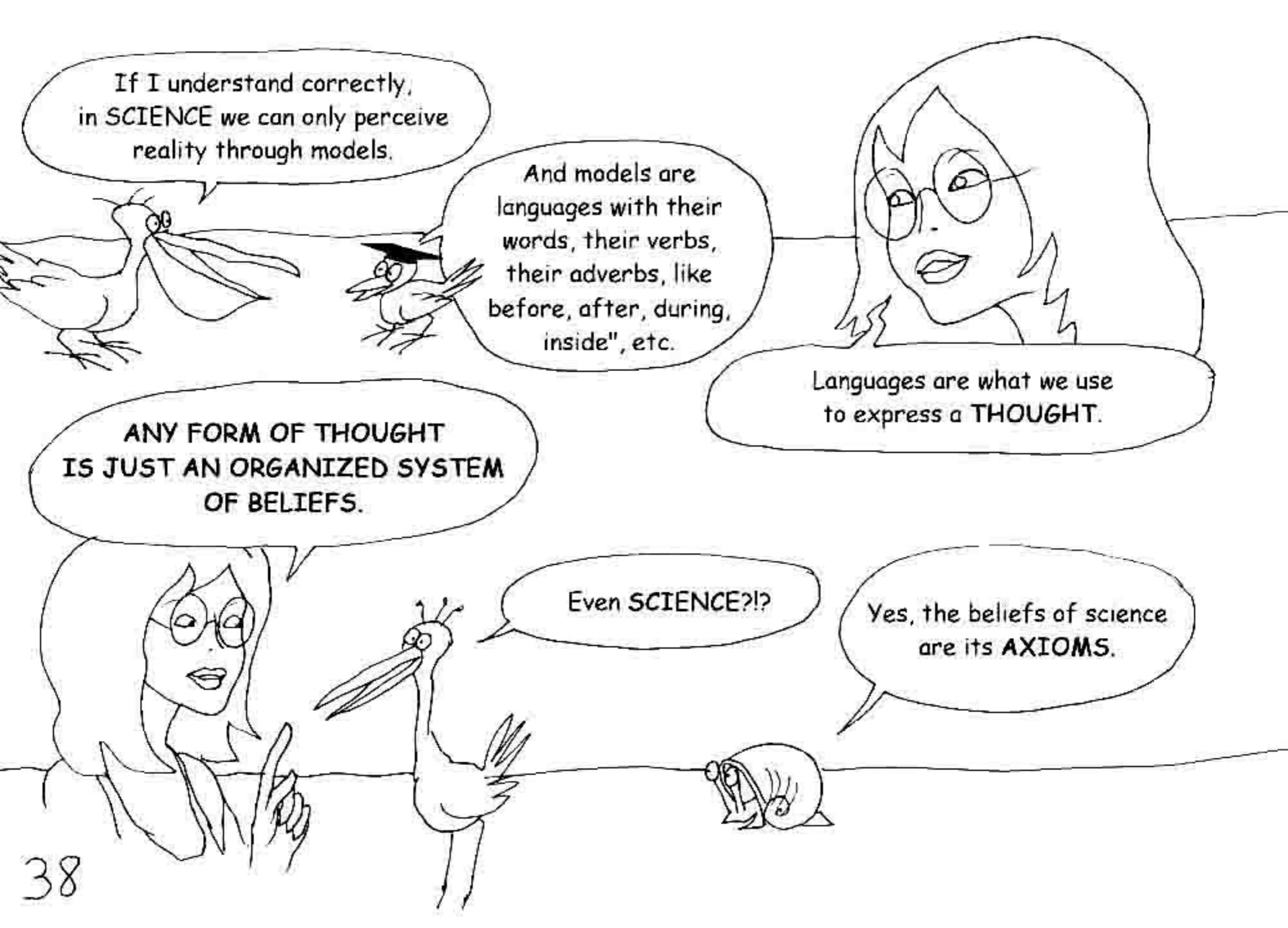
Yes, but your scientists, with their x, x^*, \bar{x}
they are theorists. With experience, you are directly
in touch with the reality of things!



PARADiGM SHIFT



(*) Work he presented in France at a conference held in Montpellier. Petit, regularly registered, planned to present his own model there, where the confinement of galaxies is ensured by an environment of negative mass. Bosma, chair of the session, demanded and obtained his exclusion from the conference.

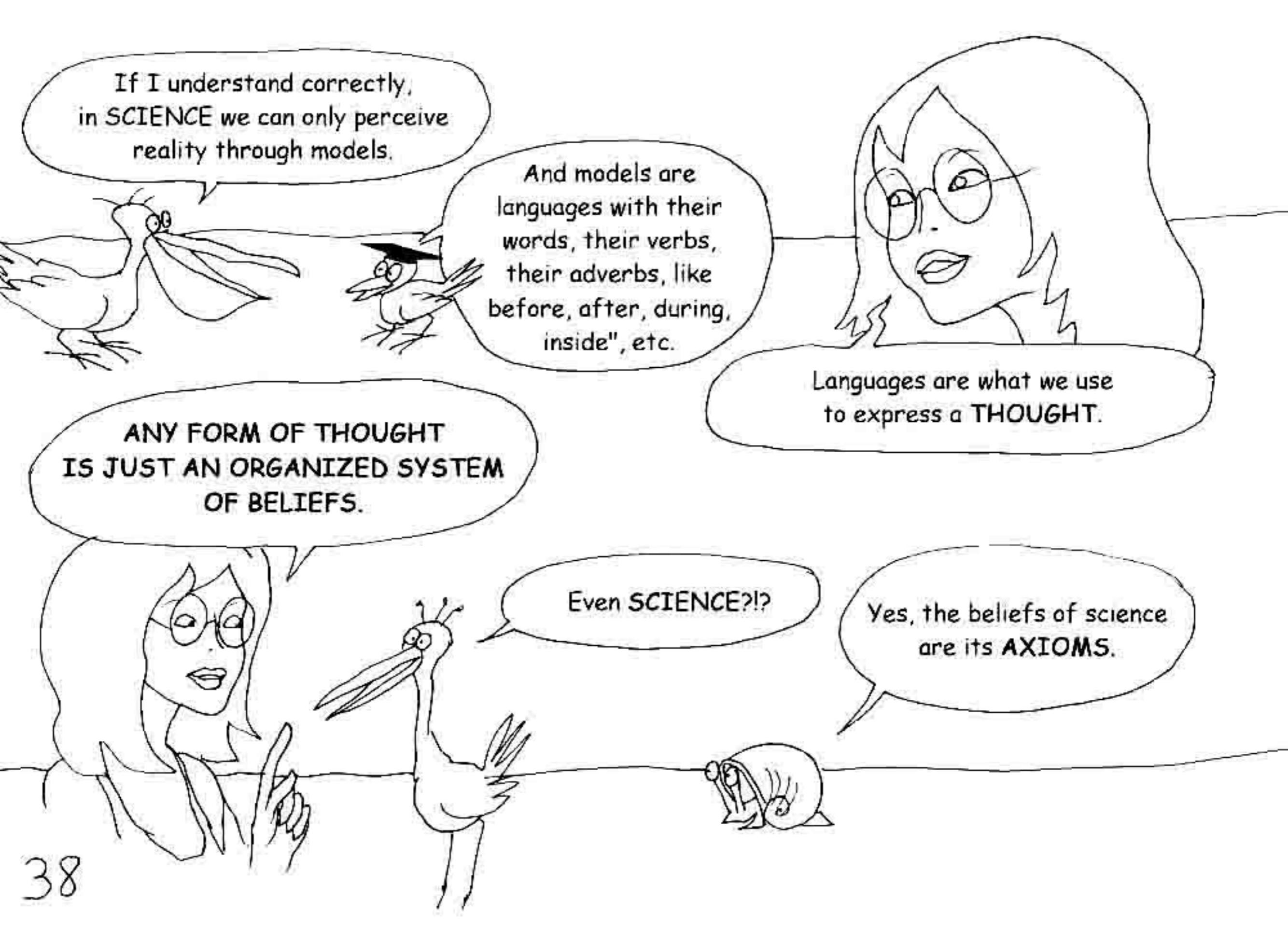


If I understand correctly,
in SCIENCE we can only perceive
reality through models.

And models are
languages with their
words, their verbs,
their adverbs, like
before, after, during,
inside", etc.

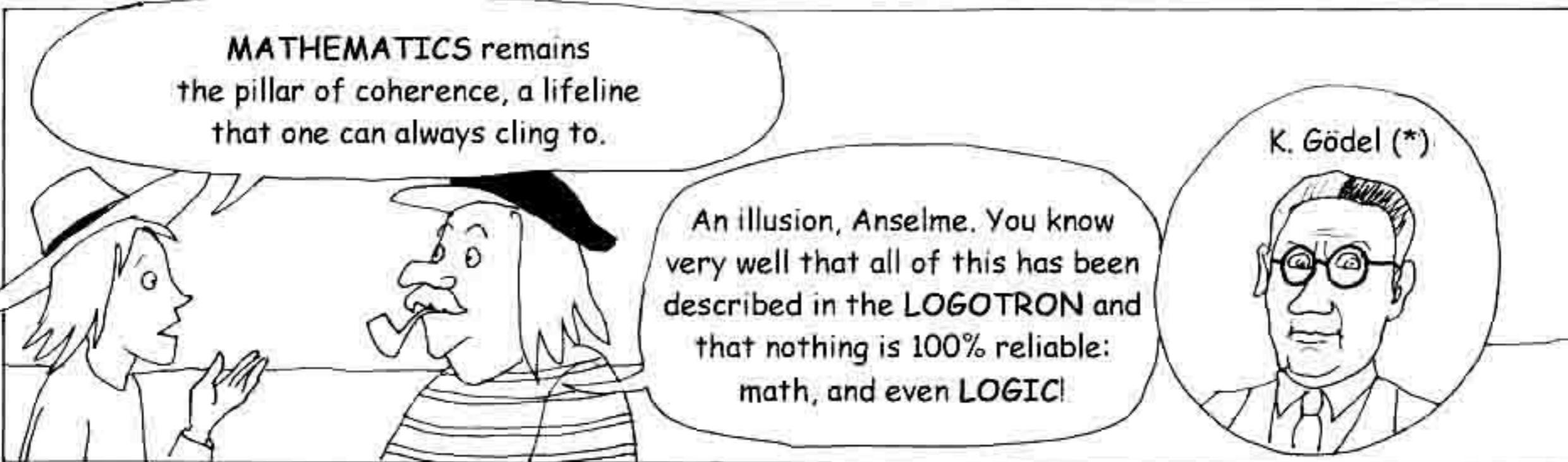
**ANY FORM OF THOUGHT
IS JUST AN ORGANIZED SYSTEM
OF BELIEFS.**

Languages are what we use
to express a THOUGHT.



Even SCIENCE?!

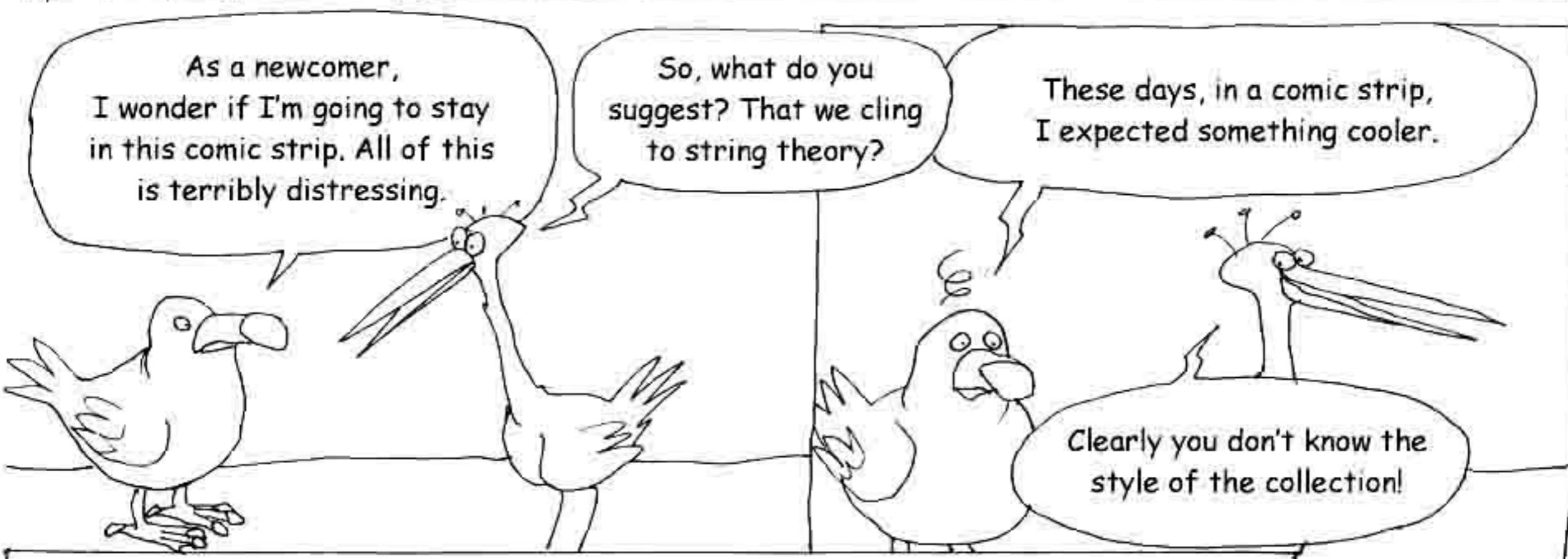
Yes, the beliefs of science
are its AXIOMS.



MATHEMATICS remains the pillar of coherence, a lifeline that one can always cling to.

An illusion, Anselme. You know very well that all of this has been described in the LOGOTRON and that nothing is 100% reliable: math, and even LOGIC!

K. Gödel (*)



As a newcomer, I wonder if I'm going to stay in this comic strip. All of this is terribly distressing.

So, what do you suggest? That we cling to string theory?

These days, in a comic strip, I expected something cooler.

Clearly you don't know the style of the collection!

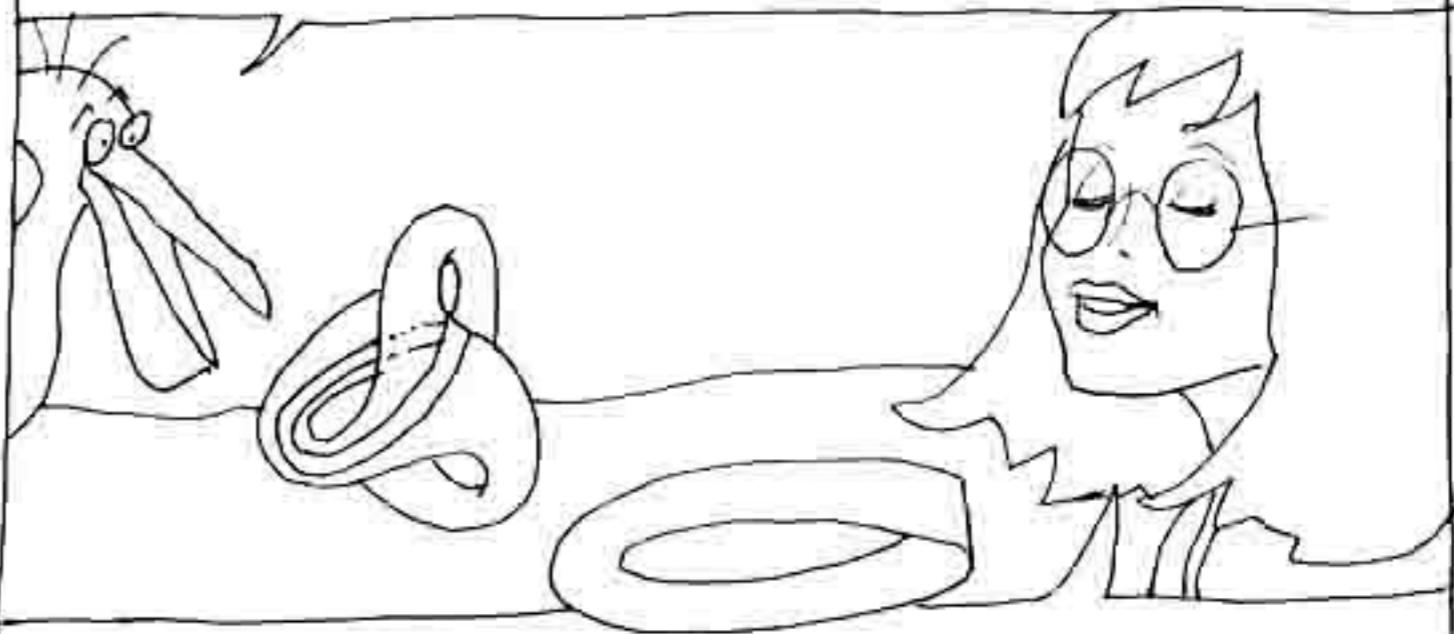
(*) Gödel's theorem: Every formal language contains at least one UNDECIDABLE proposition.

We still need to find something FUNDAMENTAL. NUMBERS: that answers the question, right?



For numbers to EXIST, they must be able to be used to count something in the universe.

Can we imagine a universe where there is NOTHING to count? That's crazy!



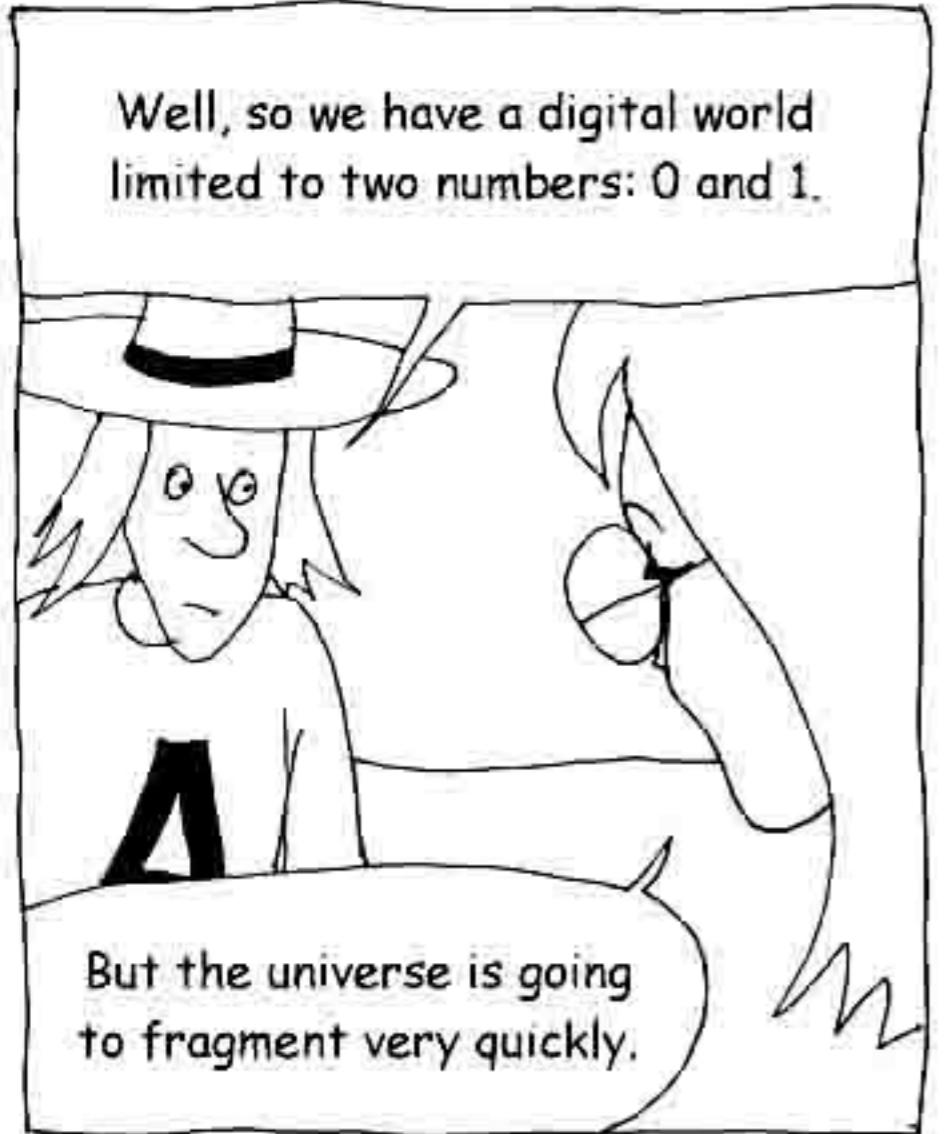
Take a universe, a uniform space on a Boy's surface (*), whose cross-sections are Möbius strips. To count, you have to be able to differentiate two things. But where would you find that, since this surface has only one side!



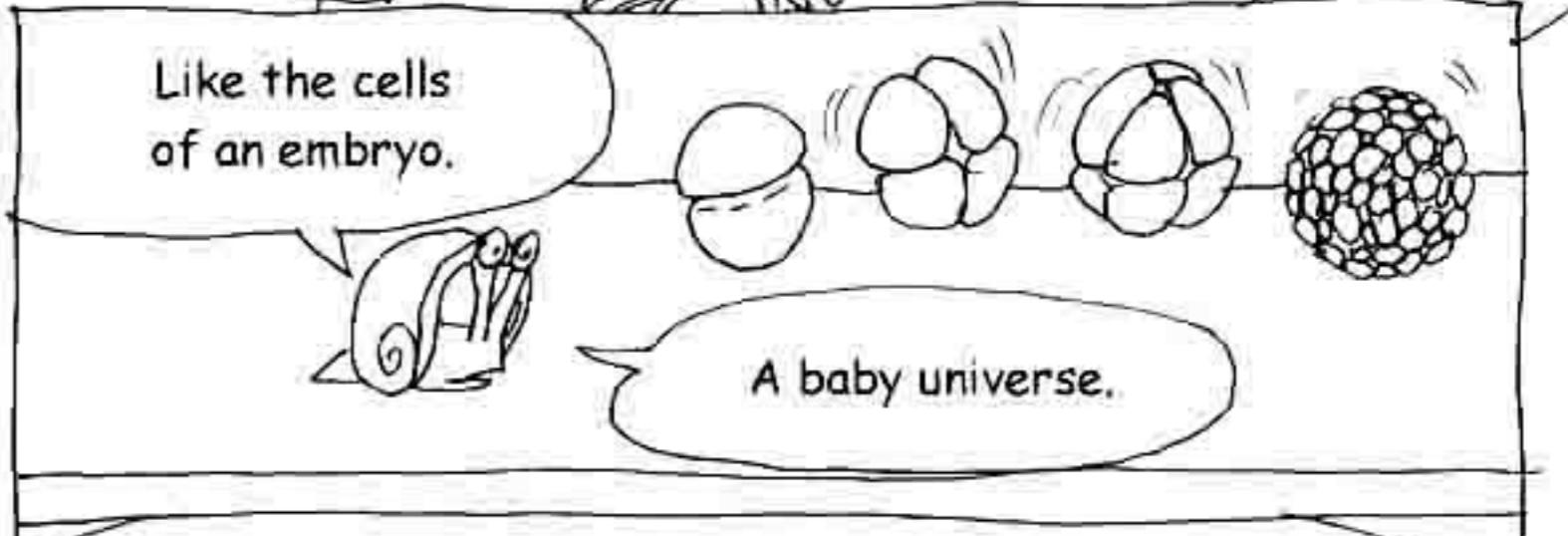
It's only when this object turns into a sphere, with a front and a back, that we can assign numbers, designating one face as 0 and the other as 1 (or +1 and -1). NUMBERING becomes possible.



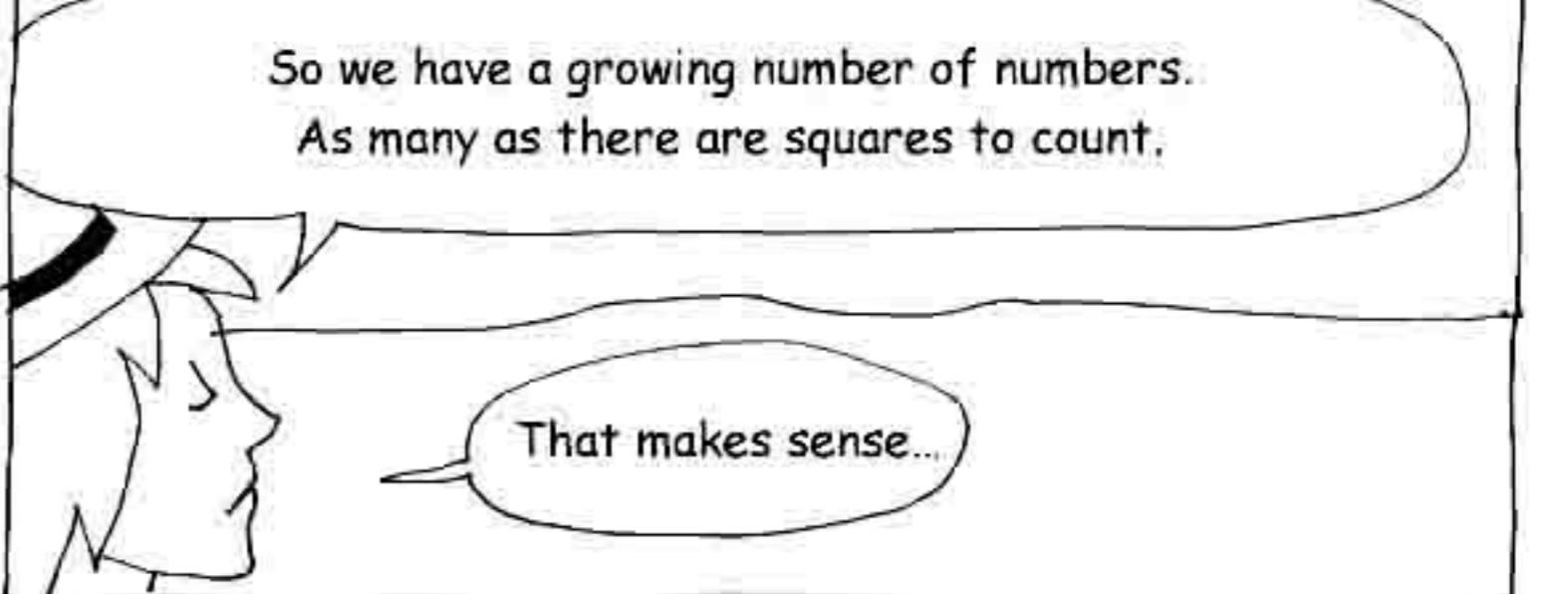
Otherwise, it would be
like a chessboard with only one square.
Impossible to consider a move!



Well, so we have a digital world
limited to two numbers: 0 and 1.



Like the cells
of an embryo.



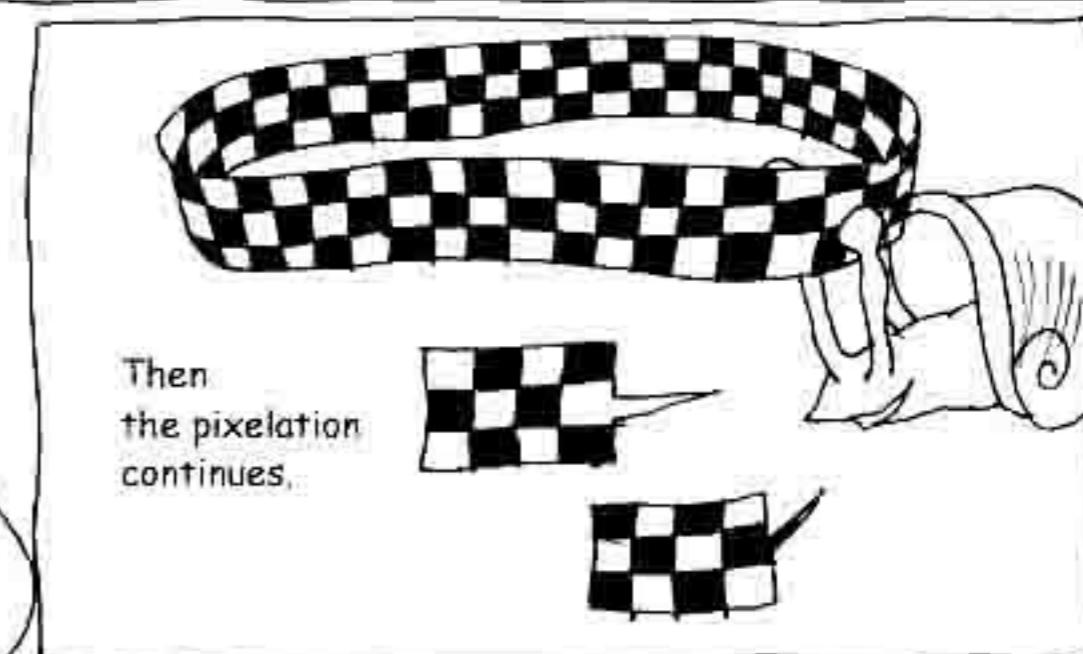
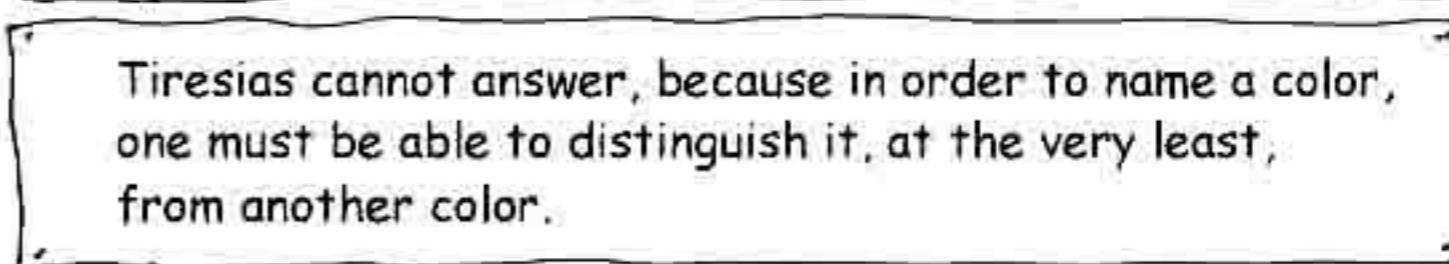
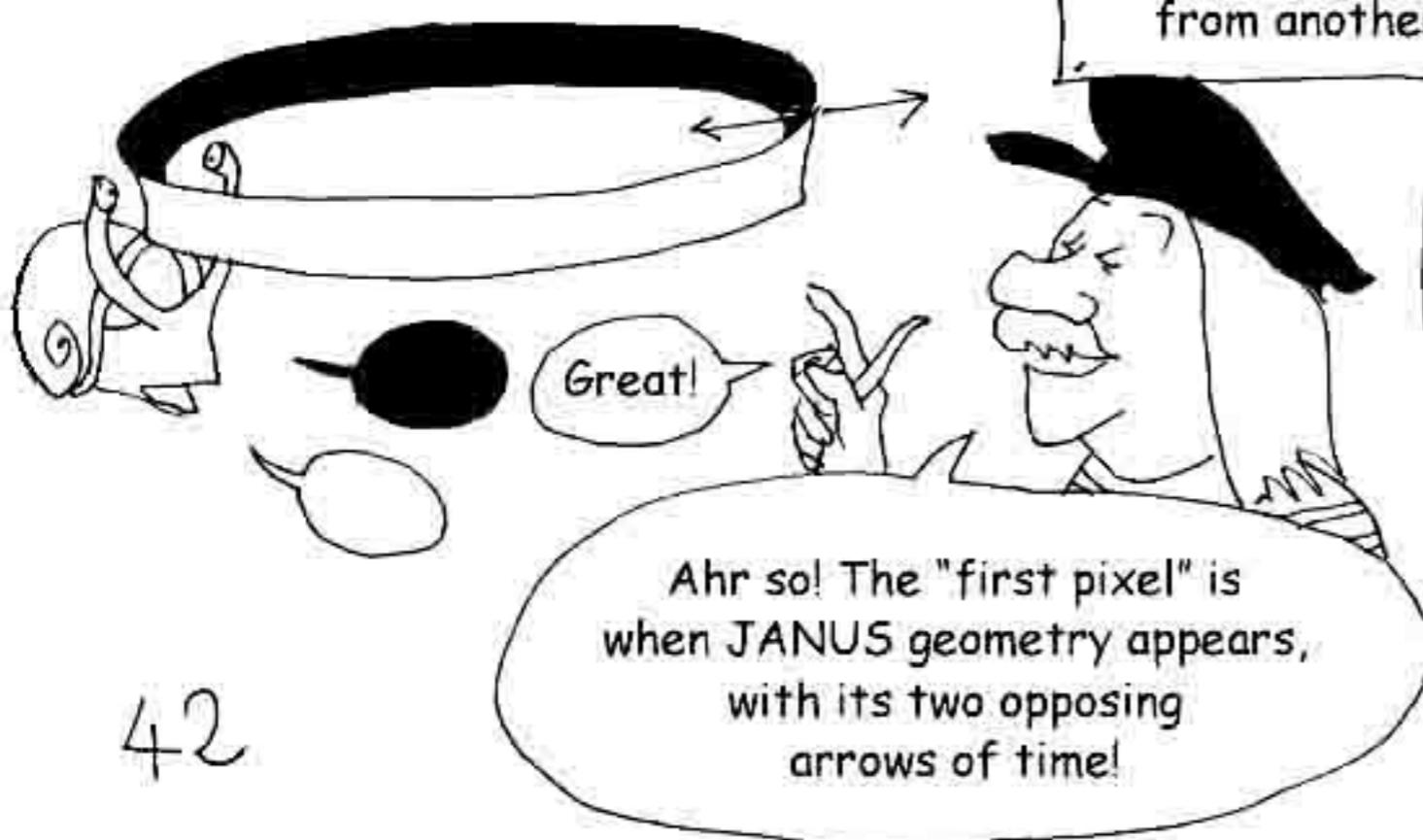
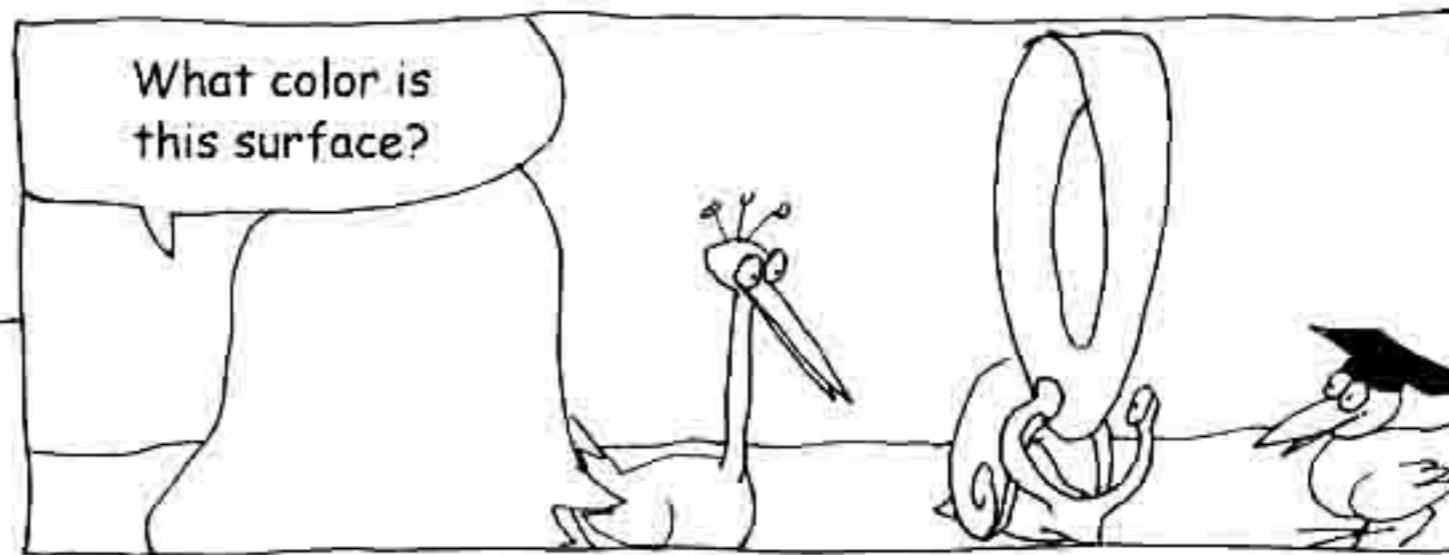
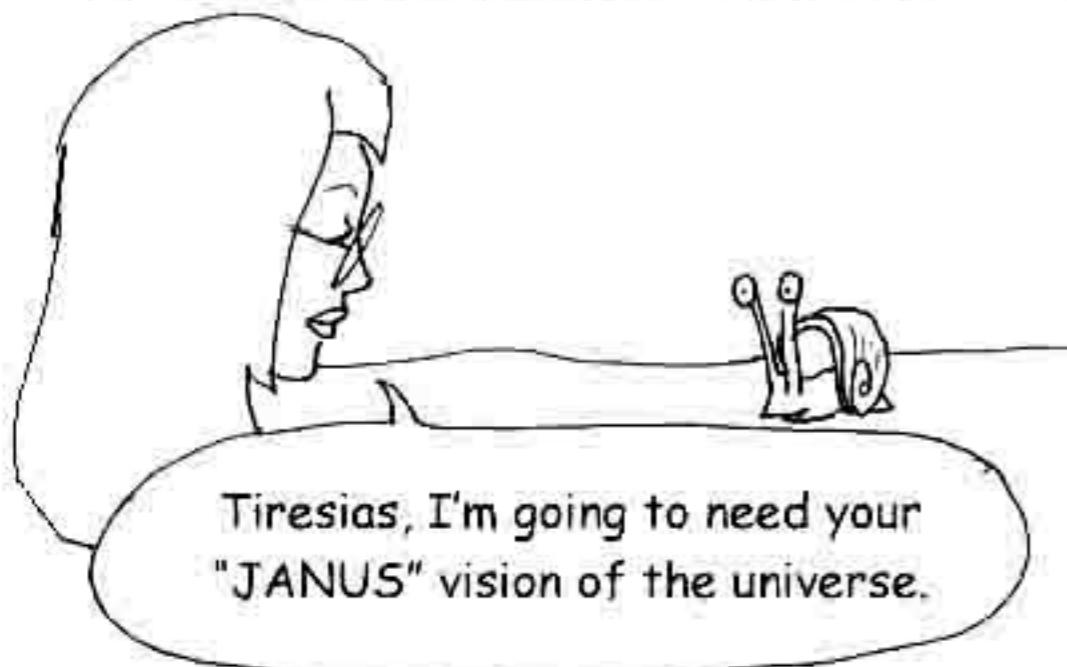
But the universe is going
to fragment very quickly.

A baby universe.

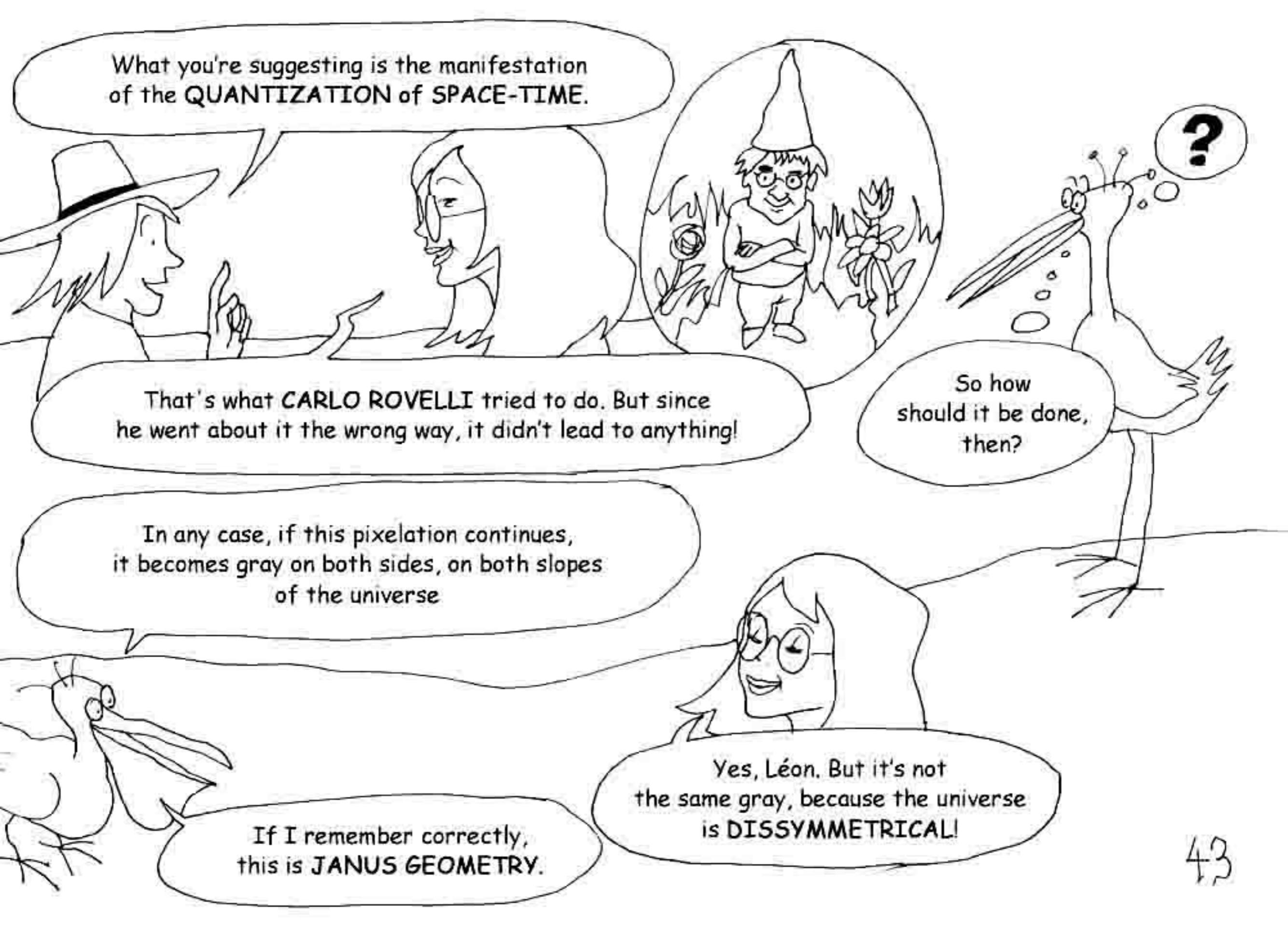
So we have a growing number of numbers.
As many as there are squares to count.

That makes sense...

PIXELATION OF THE UNIVERSE



What appears white on one side appears black on the other, and vice versa.



What you're suggesting is the manifestation of the QUANTIZATION of SPACE-TIME.

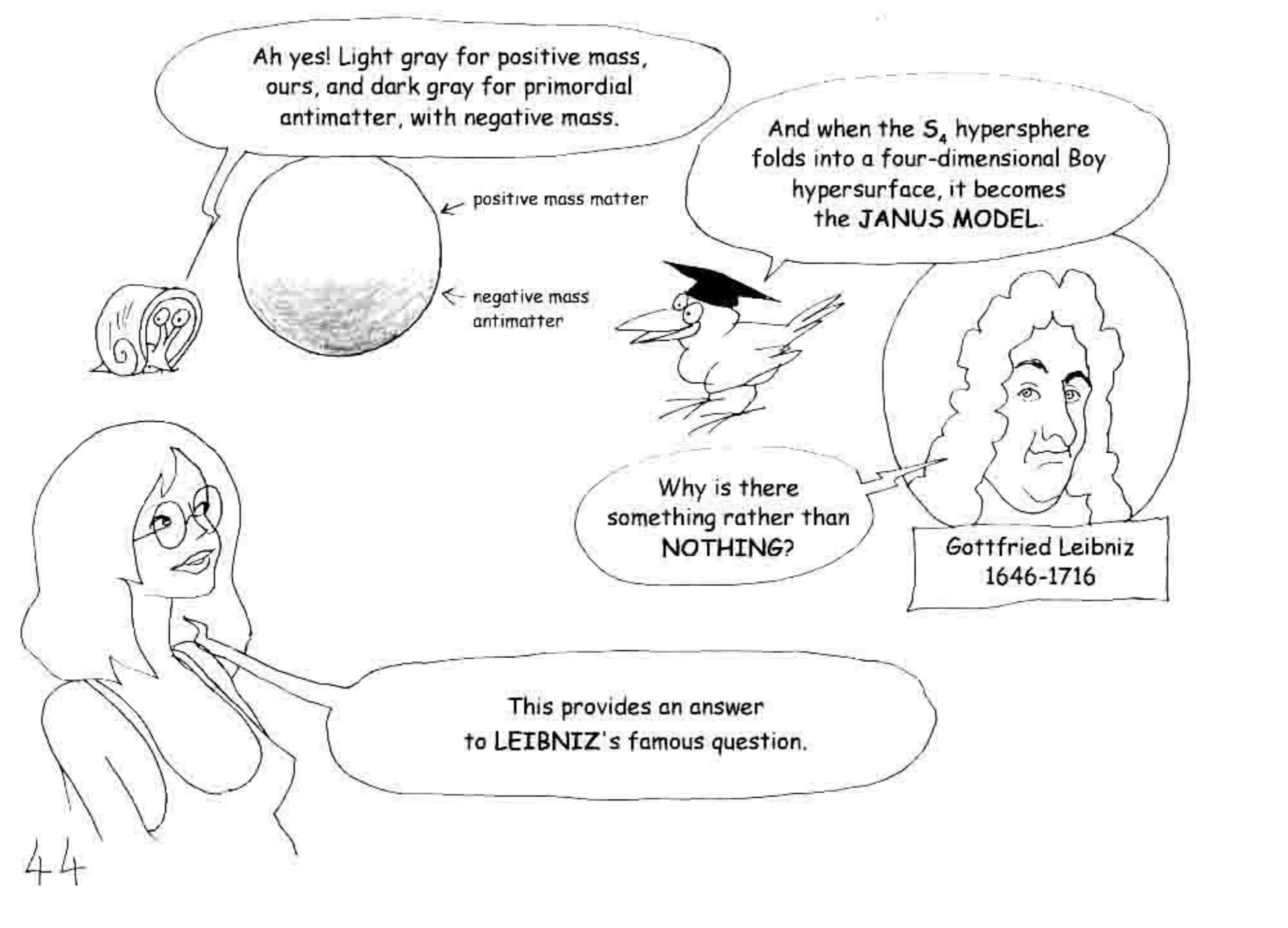
That's what CARLO ROVELLI tried to do. But since he went about it the wrong way, it didn't lead to anything!

So how should it be done, then?

In any case, if this pixelation continues, it becomes gray on both sides, on both slopes of the universe

If I remember correctly, this is JANUS GEOMETRY.

Yes, Léon. But it's not the same gray, because the universe is DISSYMMETRICAL!



Ah yes! Light gray for positive mass,
ours, and dark gray for primordial
antimatter, with negative mass.

And when the S_4 hypersphere
folds into a four-dimensional Boy
hypersurface, it becomes
the JANUS MODEL.

Why is there
something rather than
NOTHING?

Gottfried Leibniz
1646-1716

This provides an answer
to LEIBNIZ's famous question.



What you're suggesting is that, at the same time as the structuring of the universe becomes clearer, NUMBERS make their appearance through the first two states: positive and negative, white and black, 0 and 1. In order to name ONE THING, you have to be able to distinguish it from ANOTHER THING. As if INDIVIDUALITY can only manifest if OTHERNESS also manifests.

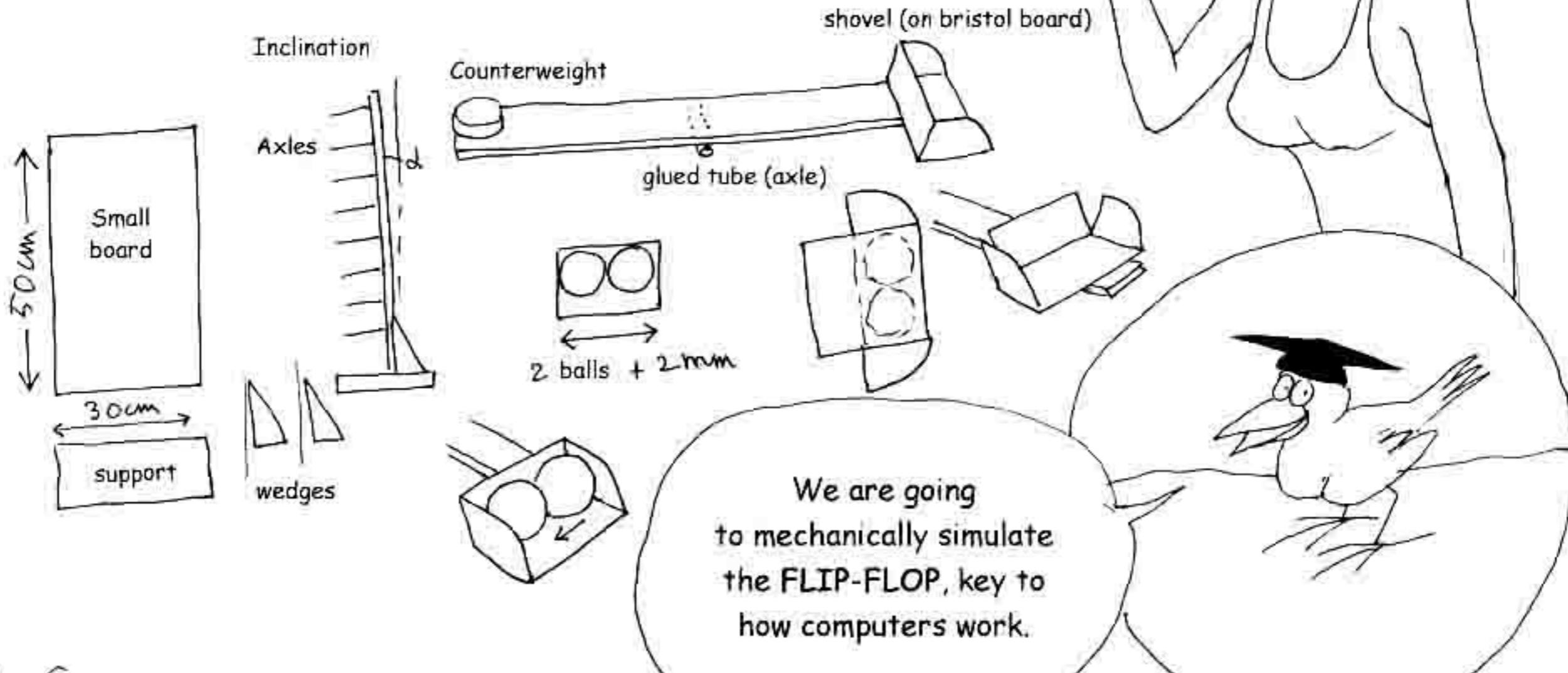
For Tiresias to be able to name a color, he must be able to compare it to another color.

But these are just subtleties for philosophers! Very quickly, the universe becomes pixelated, as you said. So, there are as many space-time cases as one can imagine, right?

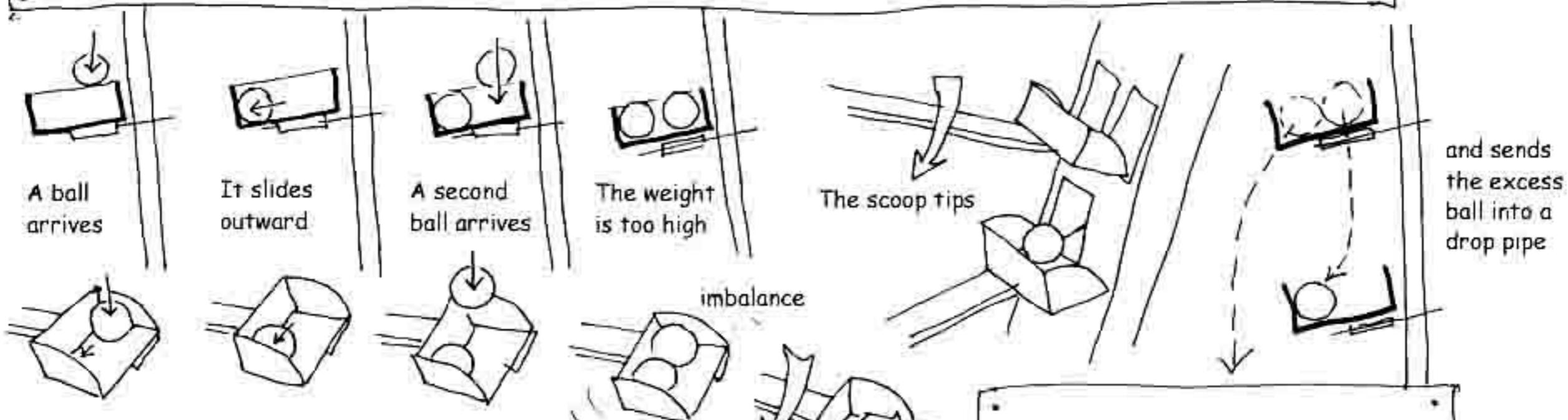
THE NUMBERICON

We are going to show you how numbers are created from two initial numbers, that is, according to binary numbering.

You will need this material:



It is the electronic system which, when it is not charged, receives an elementary electric charge and stores it. But when a second charge is applied, it discharges by transferring a unit charge to the next element, and getting rid of the other. We are going to simulate this with balls that land in slightly tilted scoops.



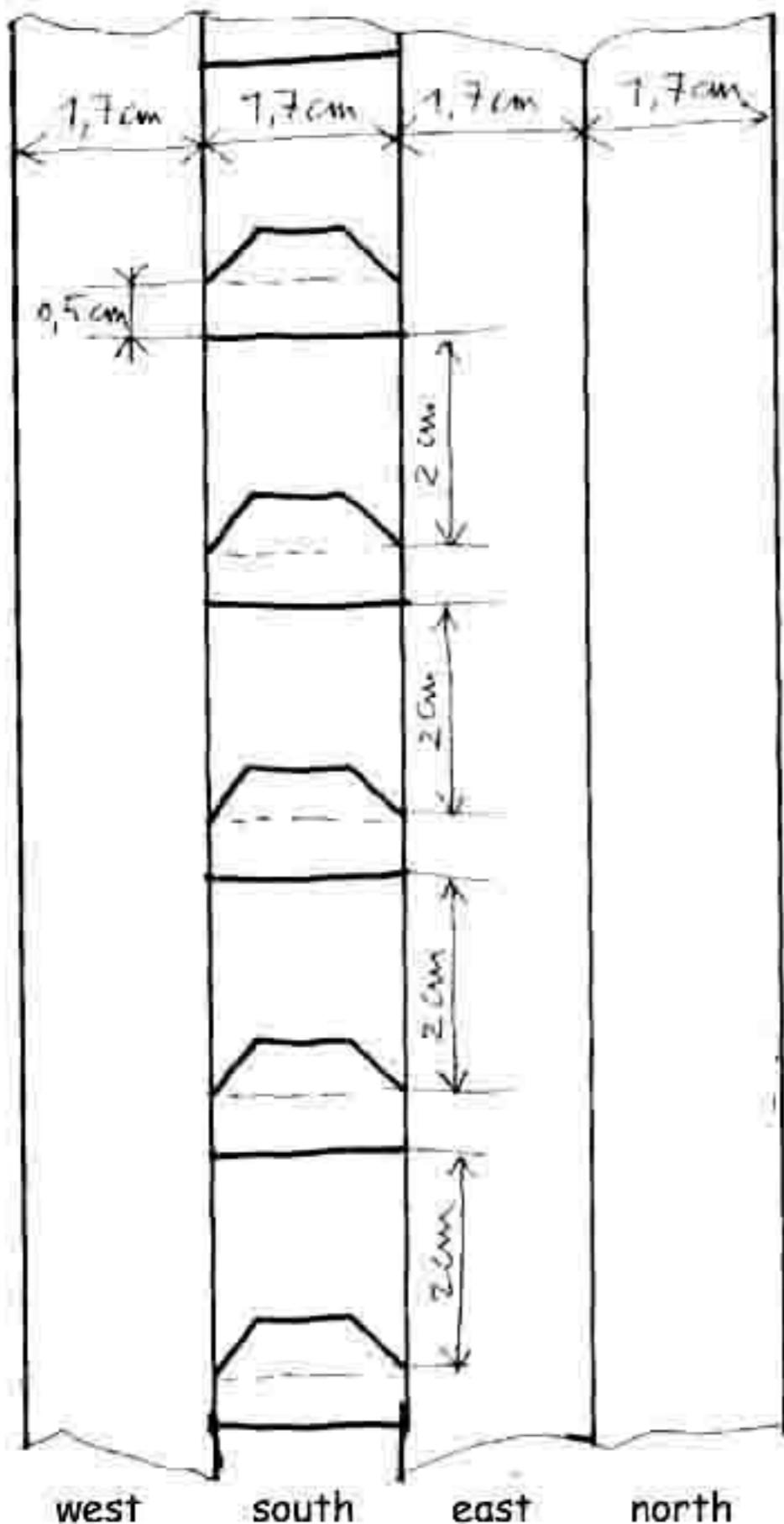
BINARY ADDITION

$0\ 0$	$+1$	$0\ 1$	1
$0\ 1$	$+1$	$1\ 1$	2
$1\ 1$	$+1$	$1\ 0\ 0$	3
$1\ 0\ 0$	$+1$	$1\ 0\ 1$	4
$1\ 0\ 1$	$+1$	$1\ 1\ 0$	5

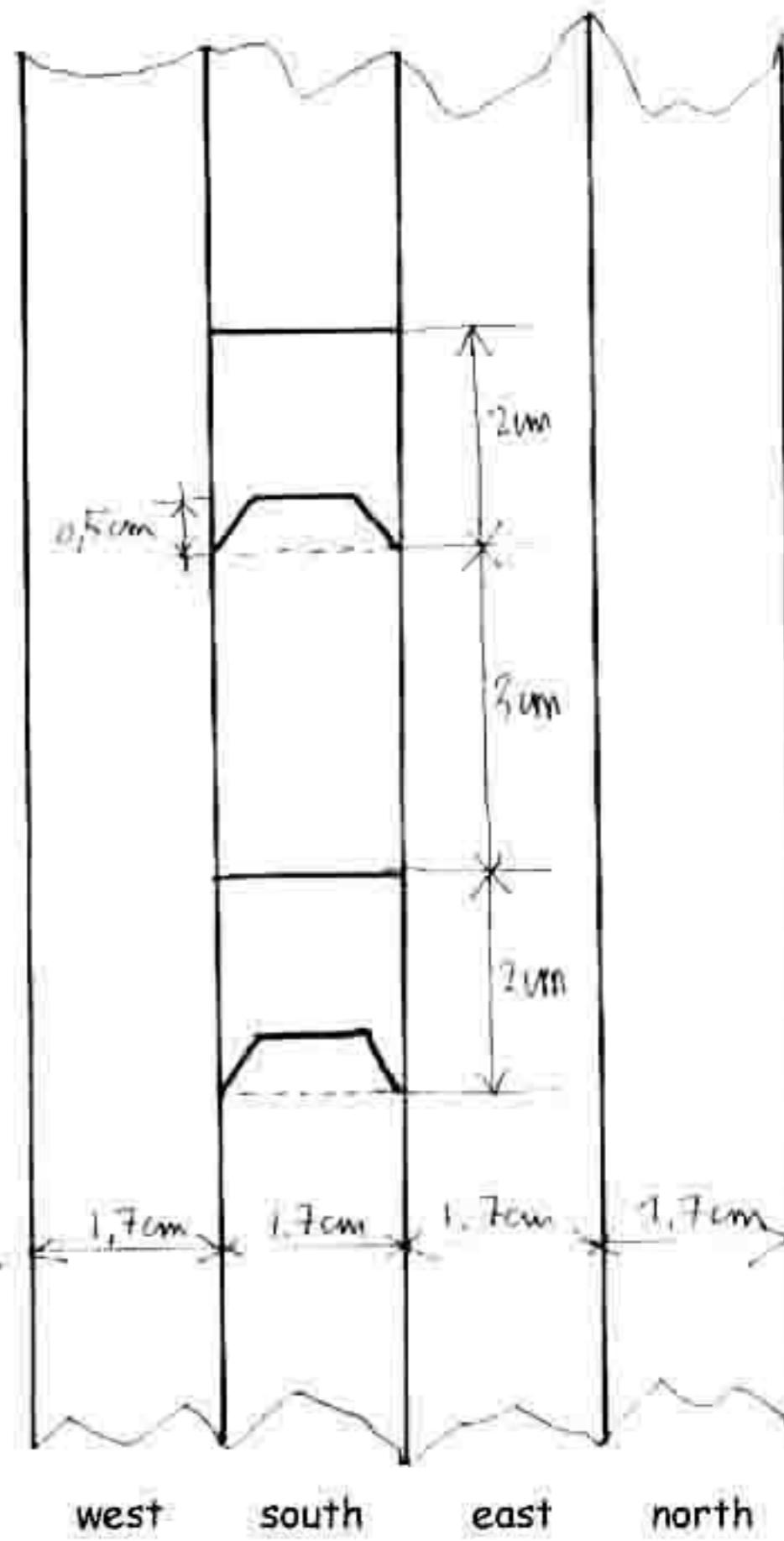
Computers can only count up to 2. Beyond that, they write: "I put 0 and carry 1" etc...

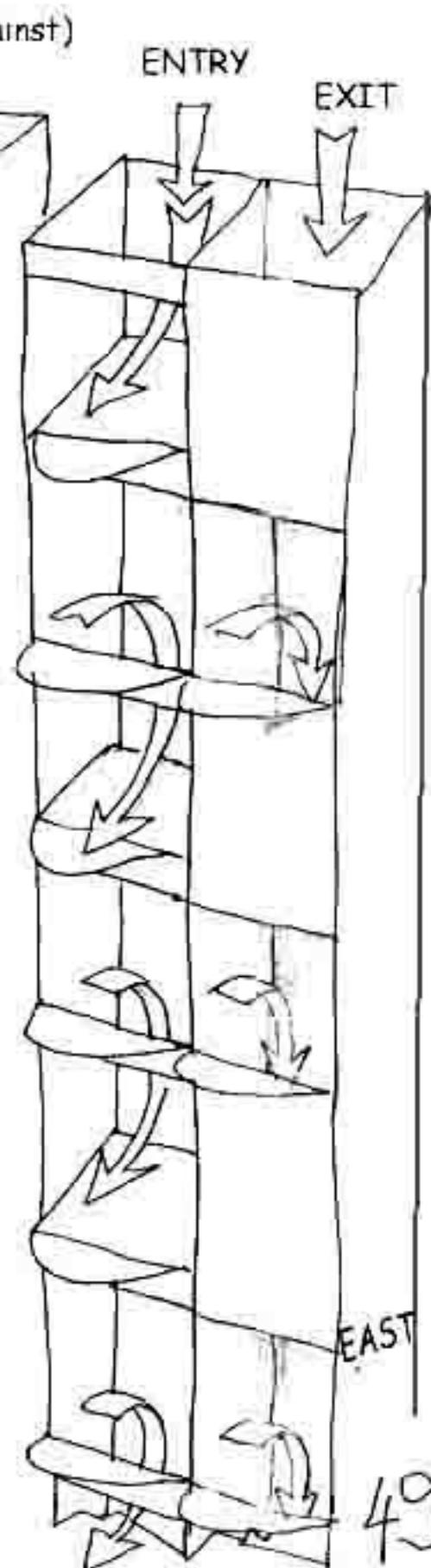
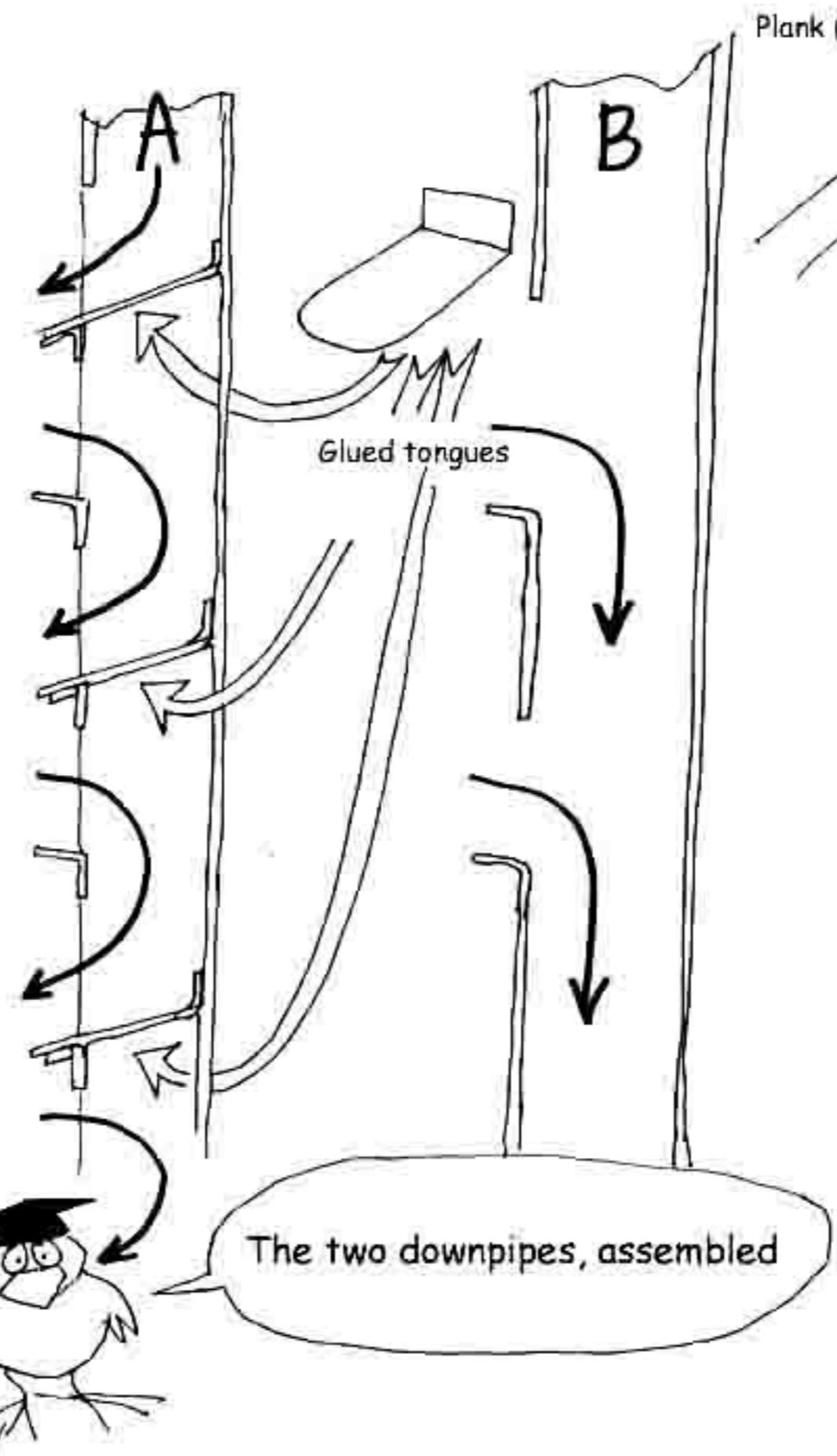
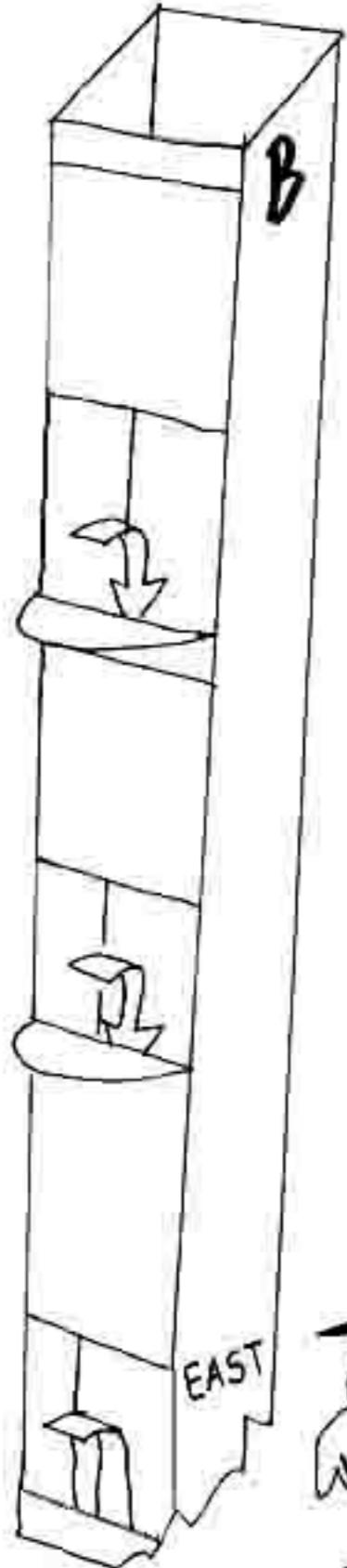
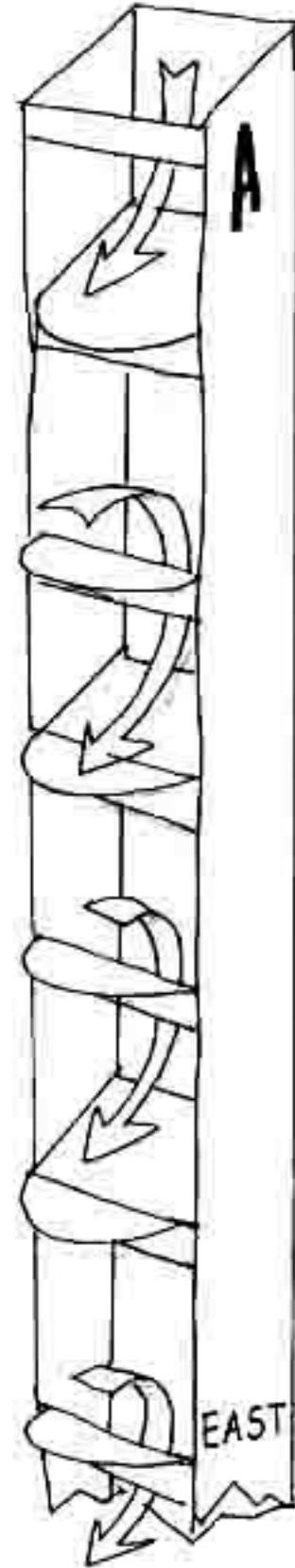
One of the balls, the one on the right, is removed. The other is sent into the scoop below.

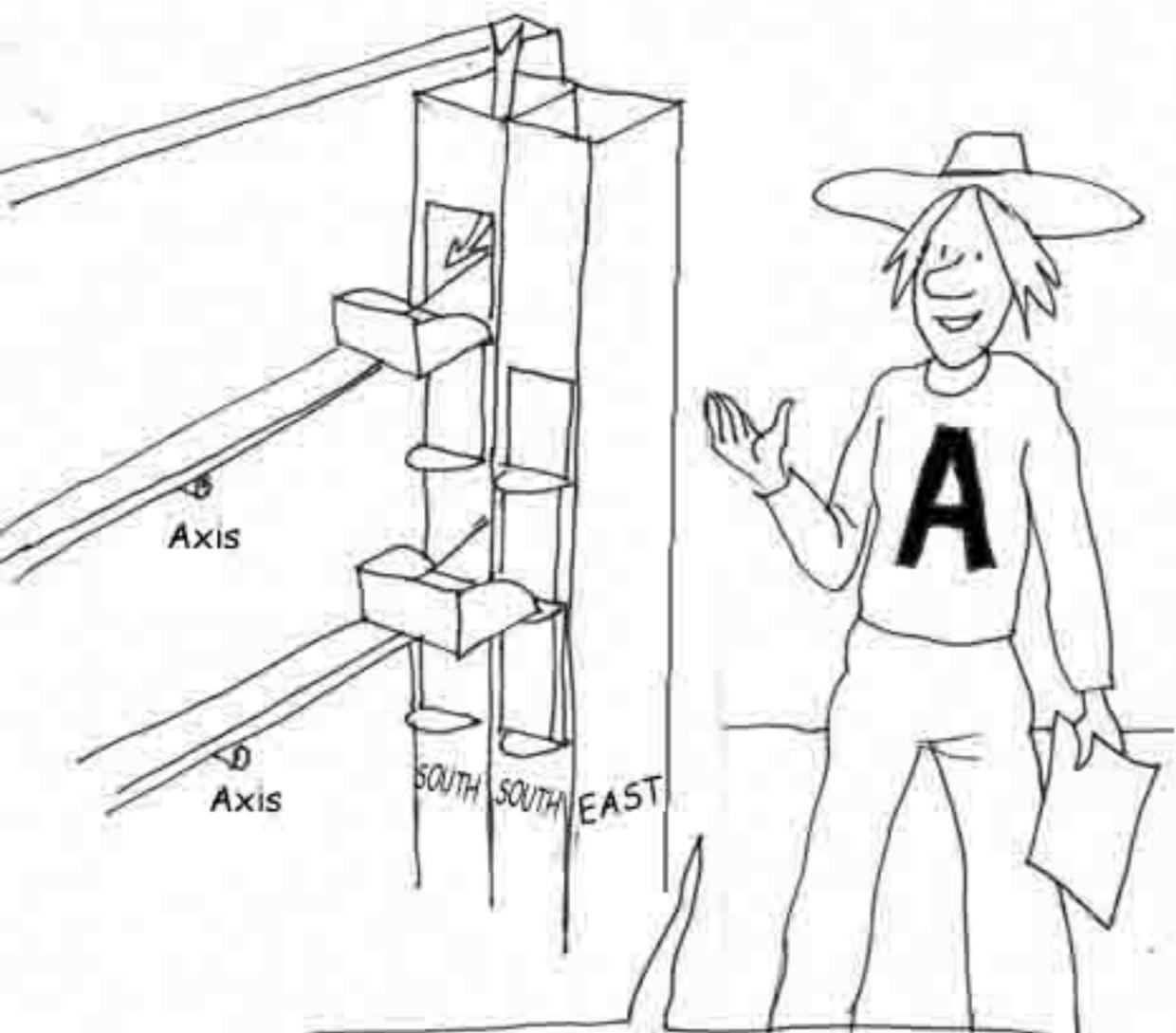




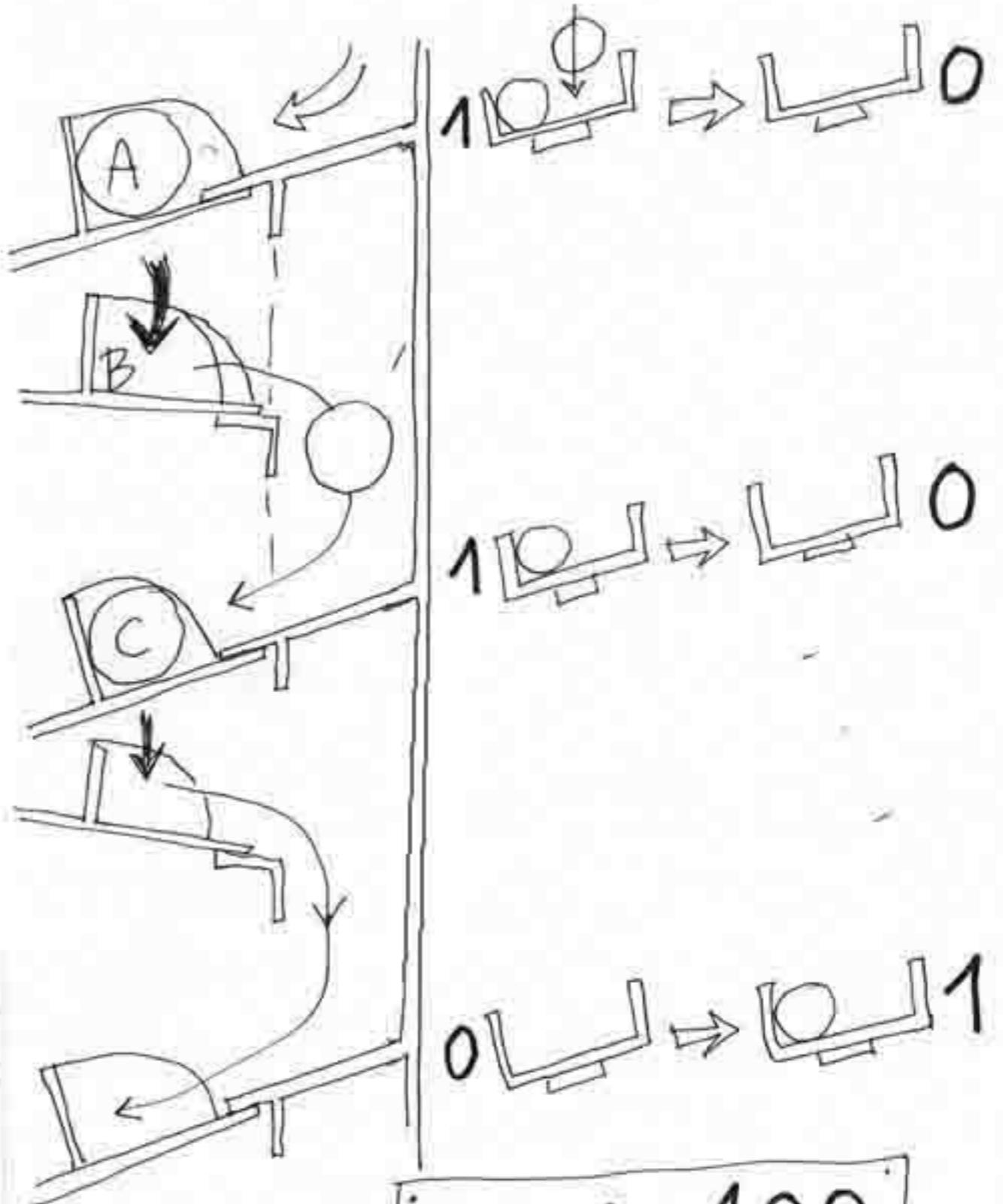
Here are
the two templates
that will allow you
to build the
"drop tubes".
On the left, the
windows that allow
the ball to be
redirected into
the scoop below.
And on the right,
for the disposal
of excess balls.







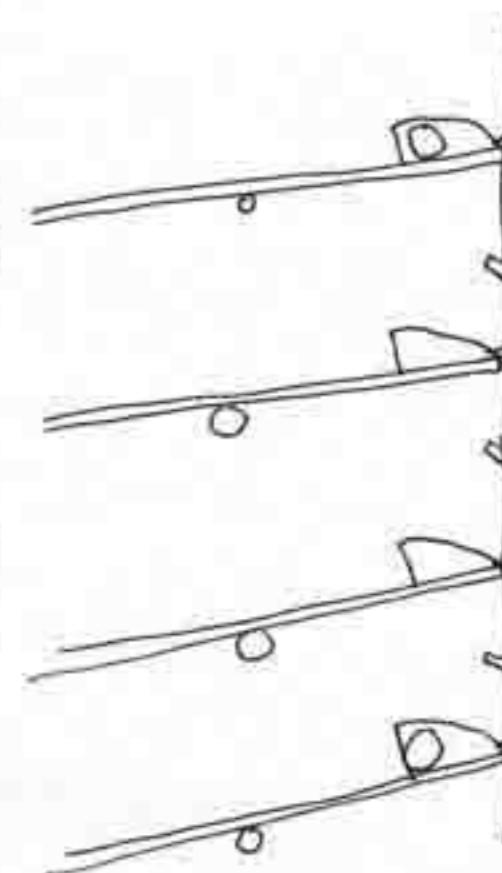
Now we position the articulated arms so that they are at the right height and position to receive the balls and transmit/evacuate them through the corresponding slots.



$$11+1=100,$$



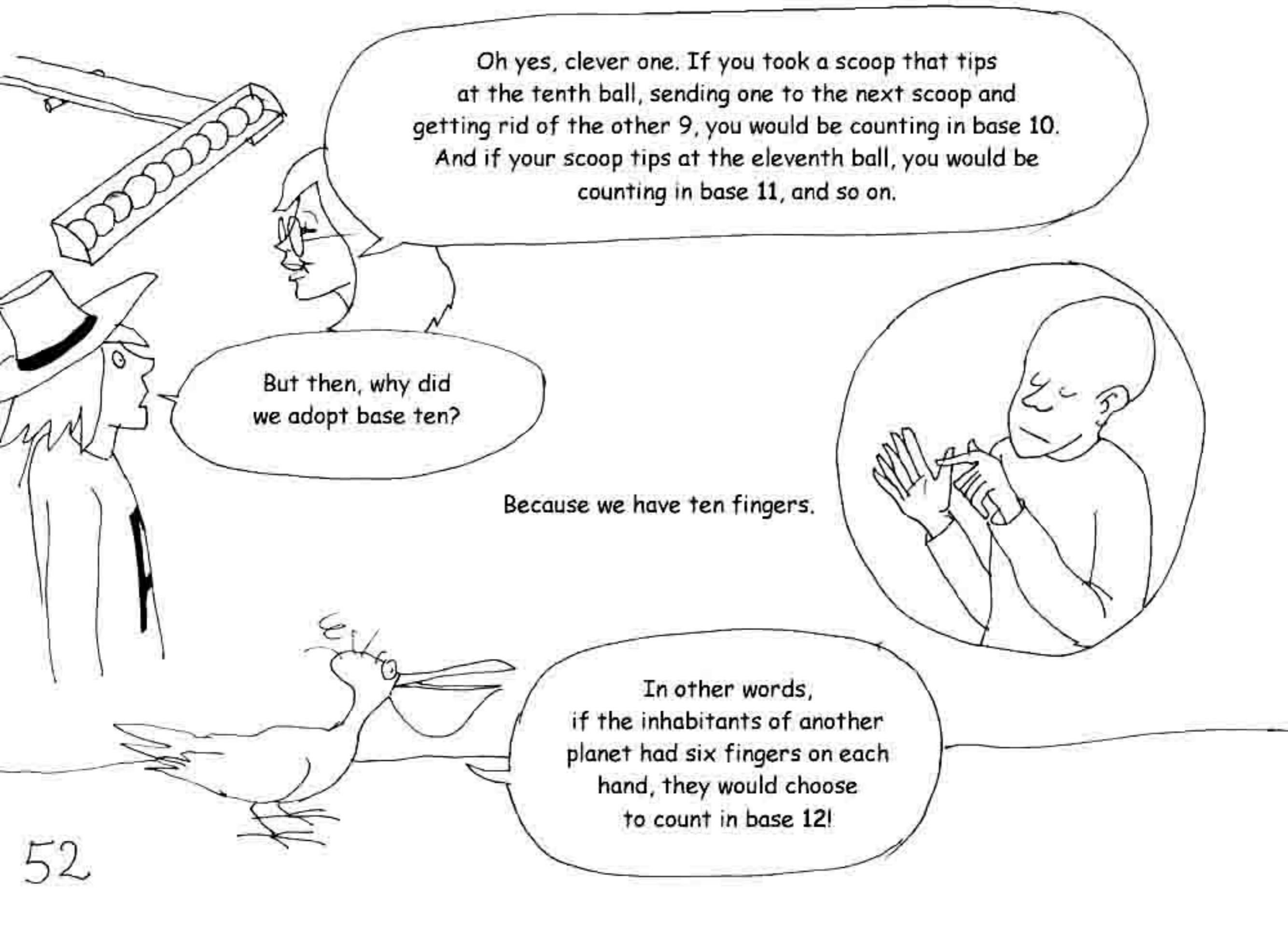
After introducing the 9 marbles



1	0	0	1
2	0	0	1
3	0	0	1
4	0	1	0
5	0	0	1
6	0	0	1
7	0	0	1
8	0	1	0
9	0	1	0
10	0	1	1
11	0	1	1

9 in binary

1	0	0	0	0	1
2	0	0	0	1	0
3	0	0	0	1	1
4	0	0	1	0	0
5	0	0	1	0	1
6	0	0	1	1	0
7	0	0	1	1	1
8	0	1	0	0	0
9	0	1	0	0	1
10	0	1	0	1	1
11	0	1	1	0	0

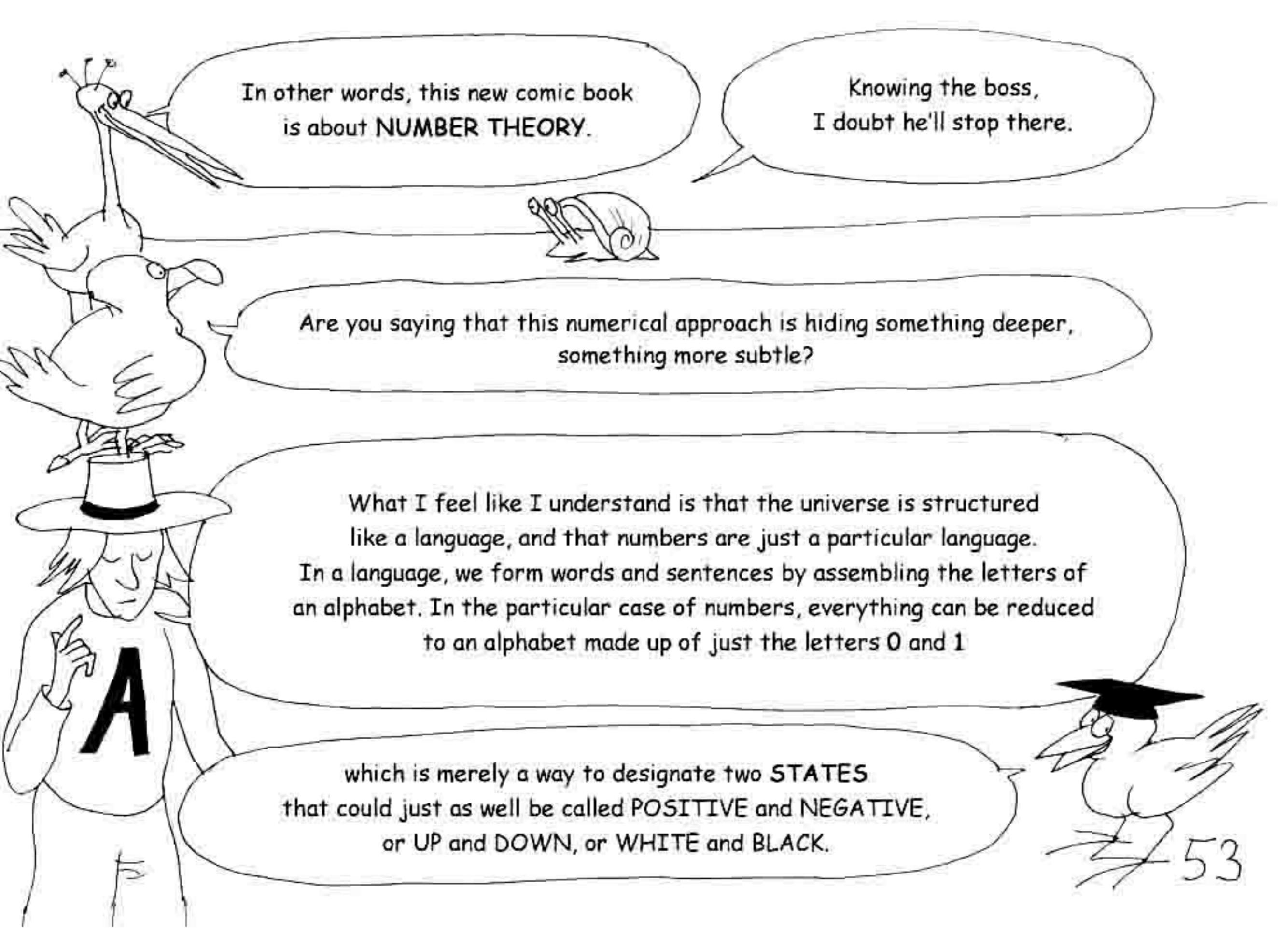


Oh yes, clever one. If you took a scoop that tips at the tenth ball, sending one to the next scoop and getting rid of the other 9, you would be counting in base 10. And if your scoop tips at the eleventh ball, you would be counting in base 11, and so on.

But then, why did we adopt base ten?

Because we have ten fingers.

In other words, if the inhabitants of another planet had six fingers on each hand, they would choose to count in base 12!



In other words, this new comic book
is about **NUMBER THEORY**.

Knowing the boss,
I doubt he'll stop there.

Are you saying that this numerical approach is hiding something deeper,
something more subtle?

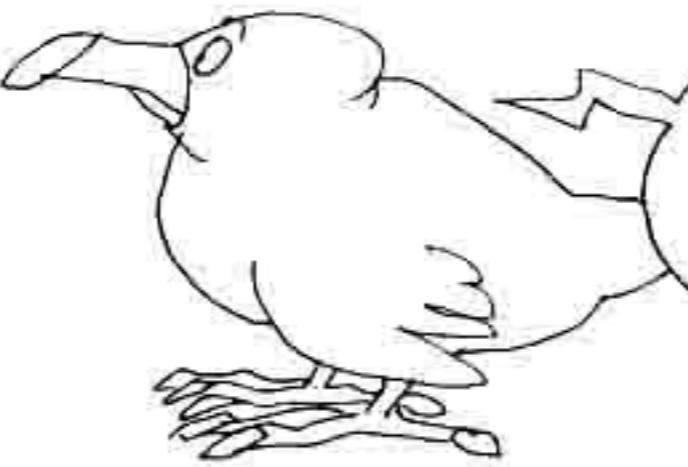
What I feel like I understand is that the universe is structured
like a language, and that numbers are just a particular language.
In a language, we form words and sentences by assembling the letters of
an alphabet. In the particular case of numbers, everything can be reduced
to an alphabet made up of just the letters 0 and 1

which is merely a way to designate two **STATES**
that could just as well be called **POSITIVE** and **NEGATIVE**,
or **UP** and **DOWN**, or **WHITE** and **BLACK**.



With **ARTIFICIAL INTELLIGENCE**, computing now mimics human reasoning.

The computer, and its logical counterpart, the **ROBOT**, aims to be a copy of the human being. Like humans, it has memory. It can capture and interpret images and sounds. It will be endowed with all the **SENSES** of a human being. It has now been given **INTELLIGENCE**. As a rule, the robot is merely an expression of **TECHNOLOGY**, which **IMITATES LIFE** in all possible and imaginable forms.



What you mean is that the universe is just a collection of 0s and 1s ?!

But, how does AI work?

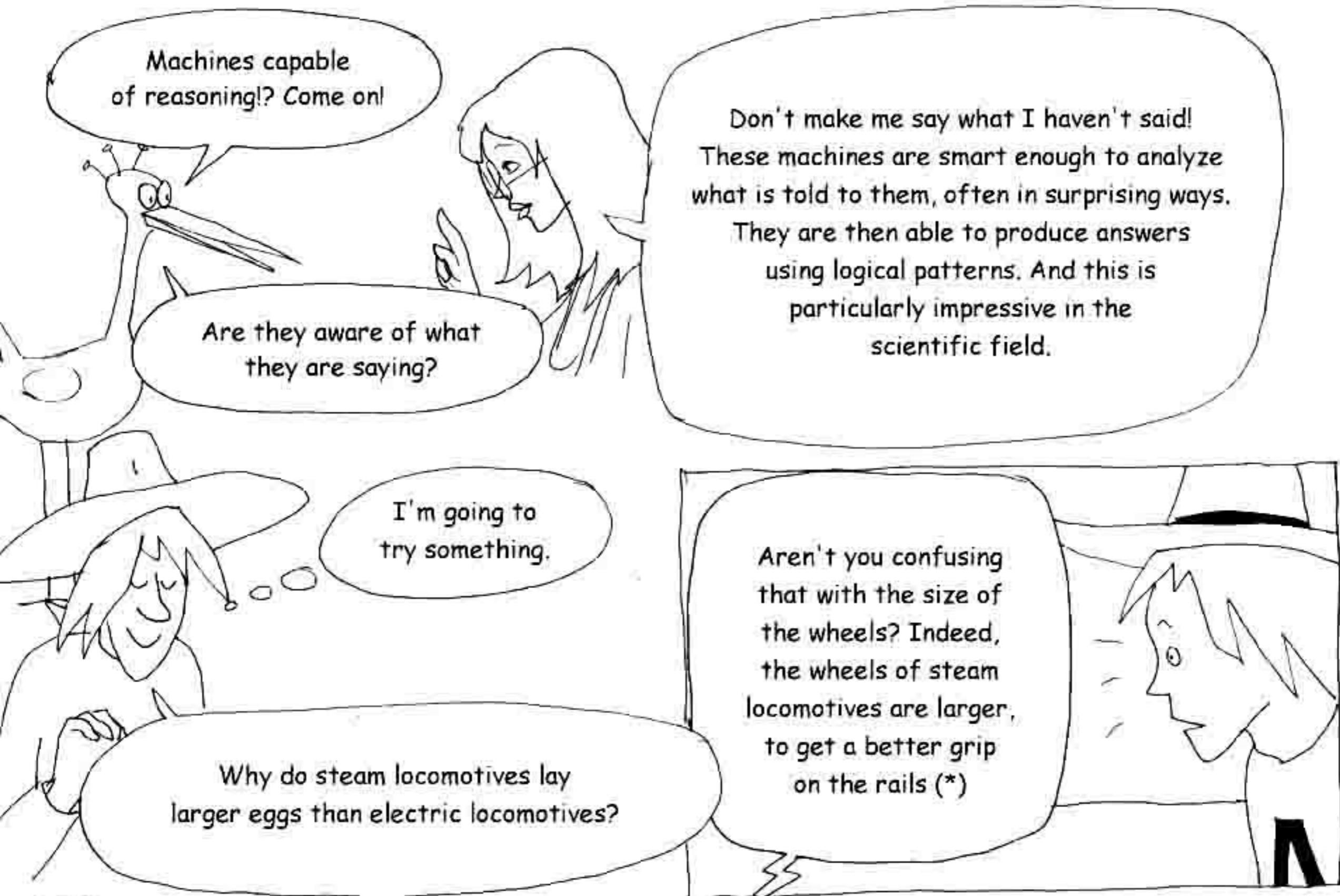


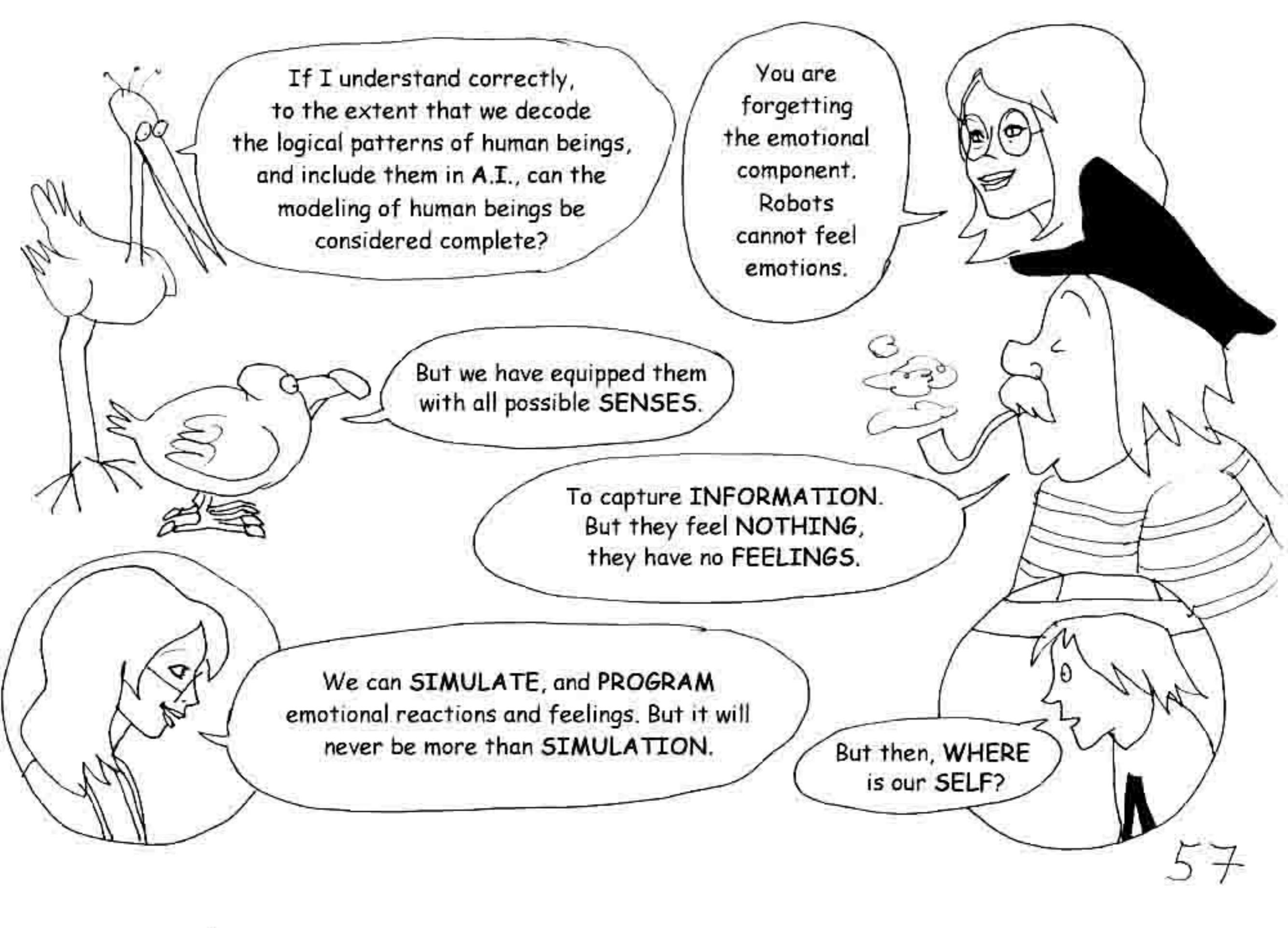
A.I.

The first misconception would be to imagine that an AI is just a gigantic collection of pre-made sentences from which it only selects the most likely response while taking the opportunity to acquire new ones along the way.

That is the description of a politician, or of a journalist today.

Certainly, an AI's **DATABASE** is enormous and continually growing. But these artificial intelligences mainly memorize decision-making architectures, **LOGICAL** patterns. And this is because they are endowed with the ability to **REASON**.





If I understand correctly,
to the extent that we decode
the logical patterns of human beings,
and include them in A.I., can the
modeling of human beings be
considered complete?

You are
forgetting
the emotional
component.
Robots
cannot feel
emotions.

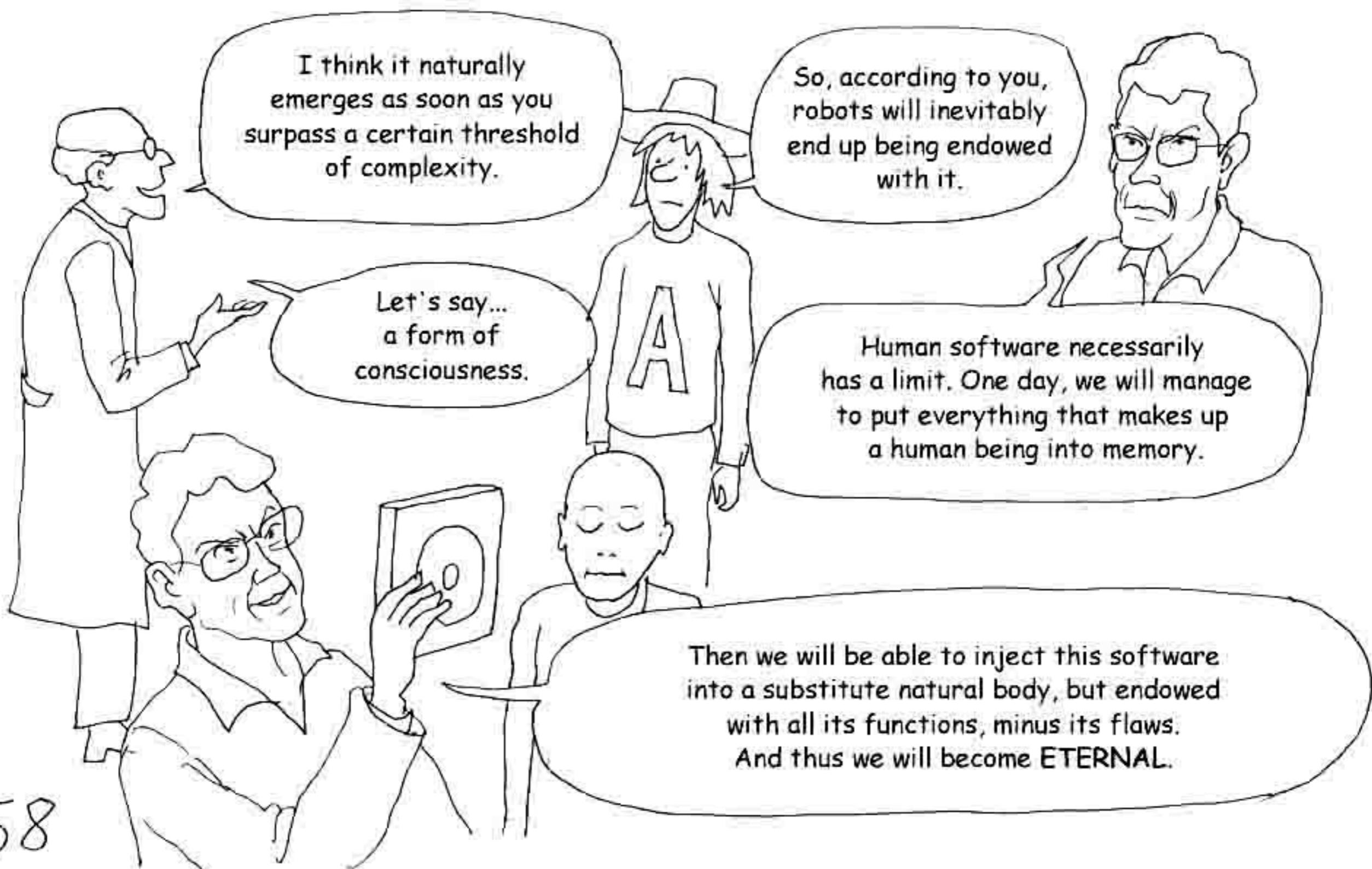
But we have equipped them
with all possible SENSES.

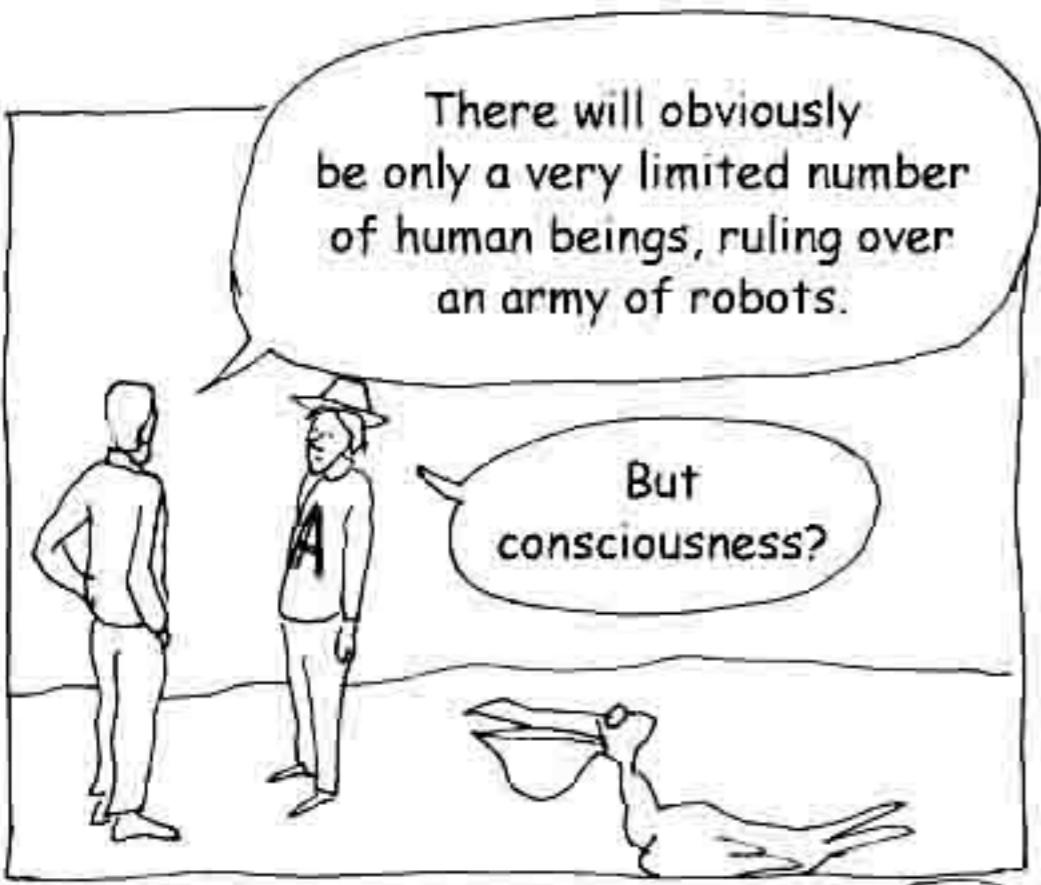
To capture INFORMATION.
But they feel NOTHING,
they have no FEELINGS.

We can SIMULATE, and PROGRAM
emotional reactions and feelings. But it will
never be more than SIMULATION.

But then, WHERE
is our SELF?

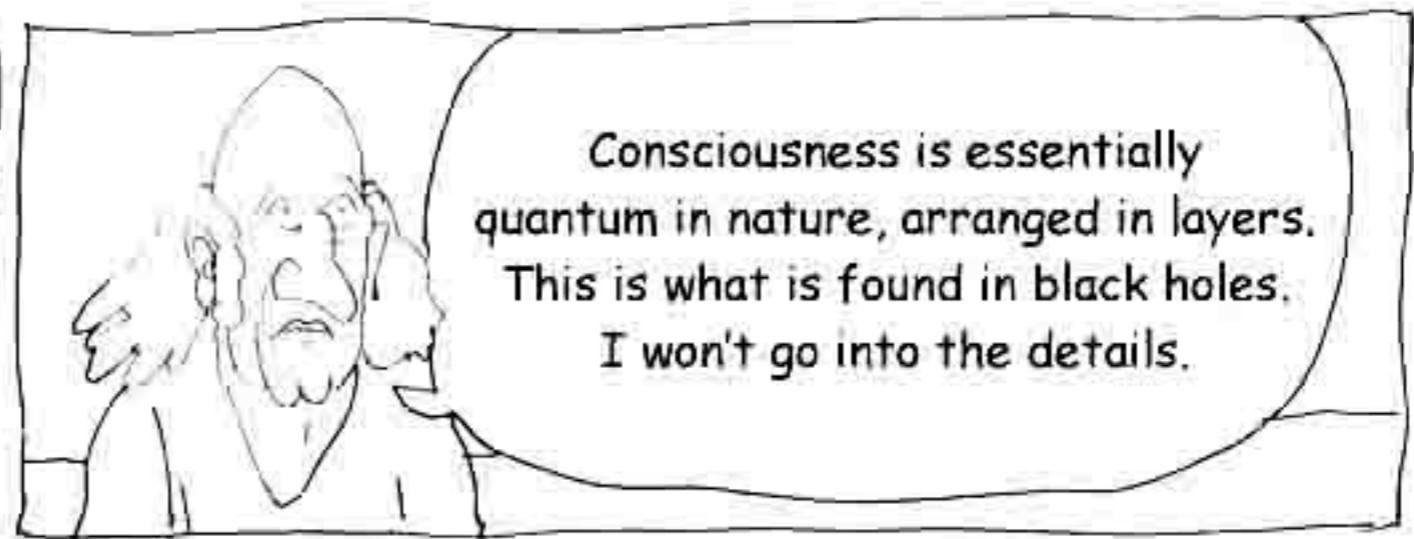
CONSCIOUSNESS



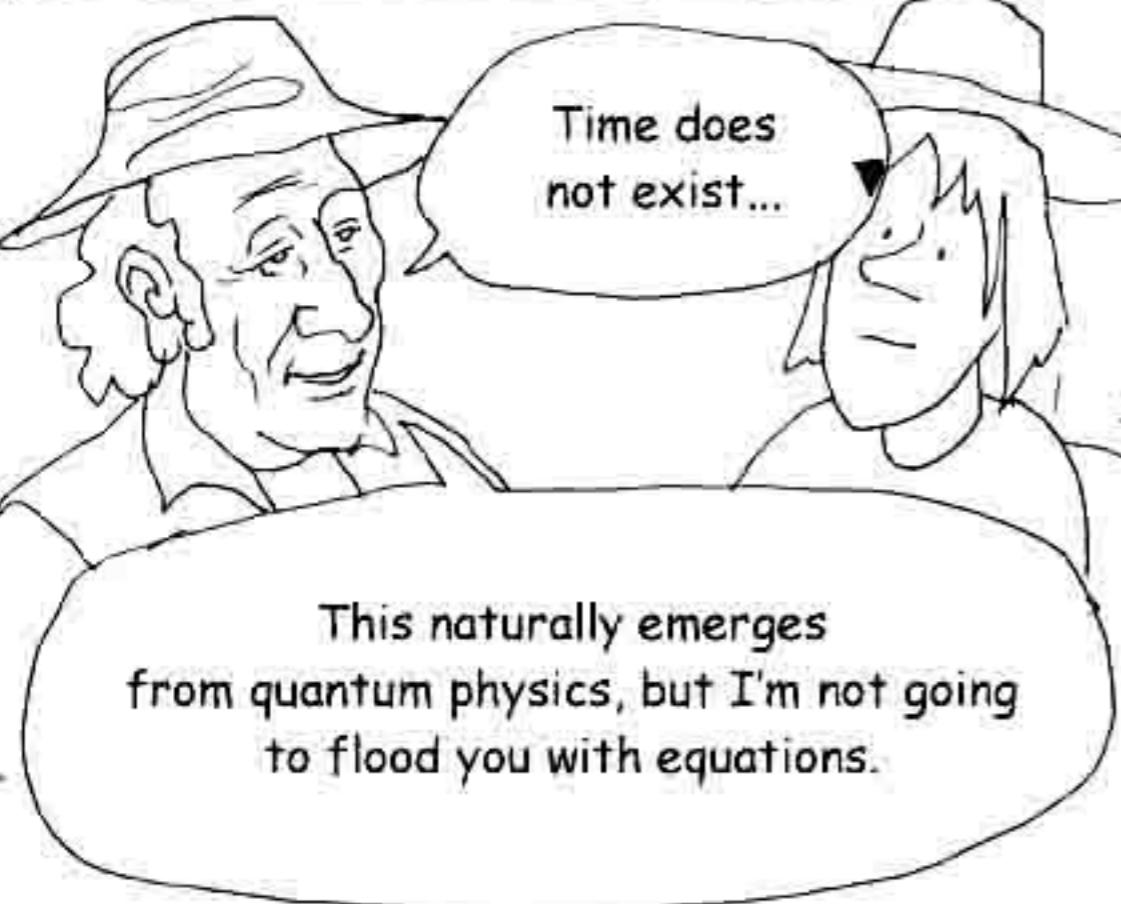


There will obviously be only a very limited number of human beings, ruling over an army of robots.

But consciousness?



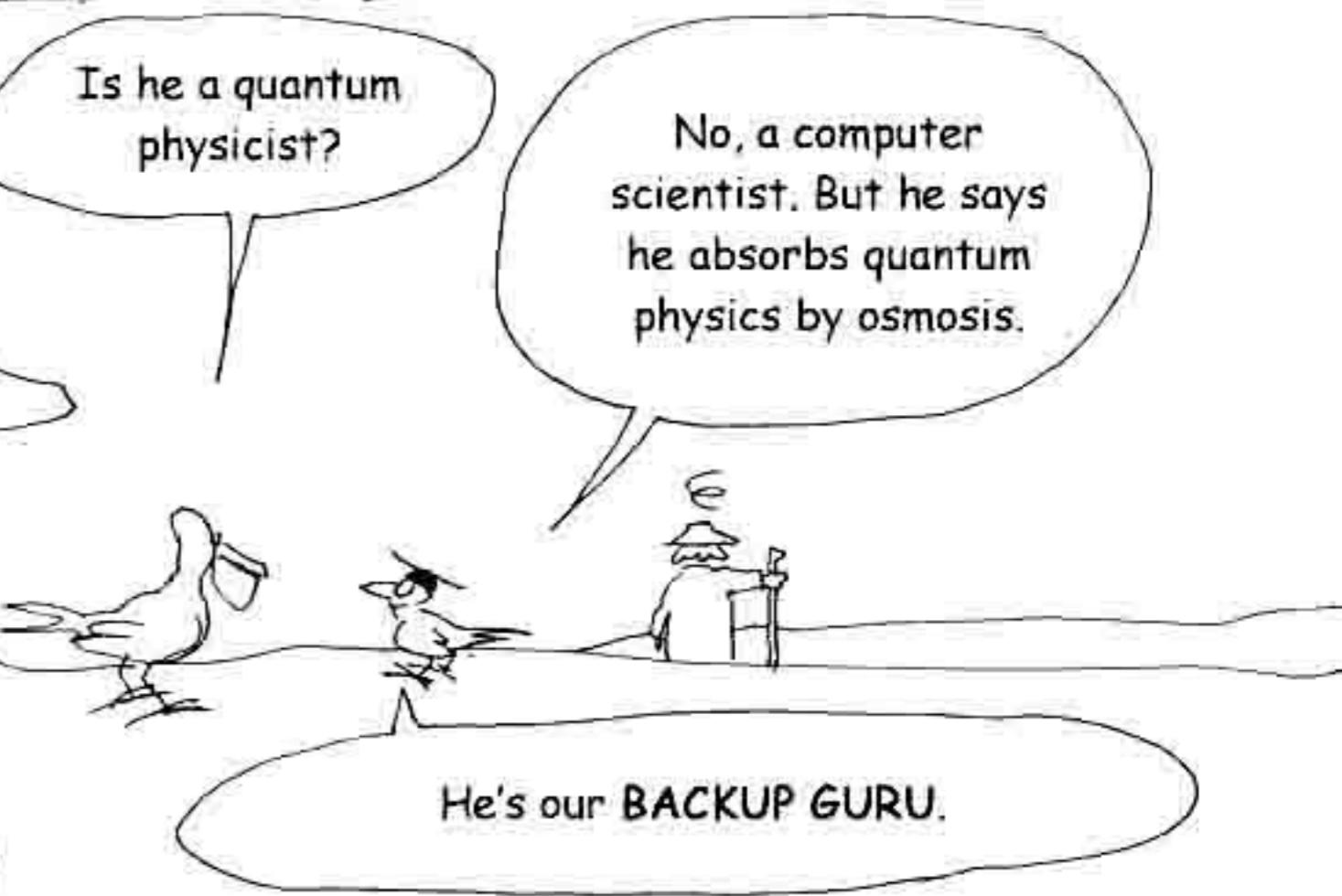
Consciousness is essentially quantum in nature, arranged in layers. This is what is found in black holes. I won't go into the details.



Is he a quantum physicist?

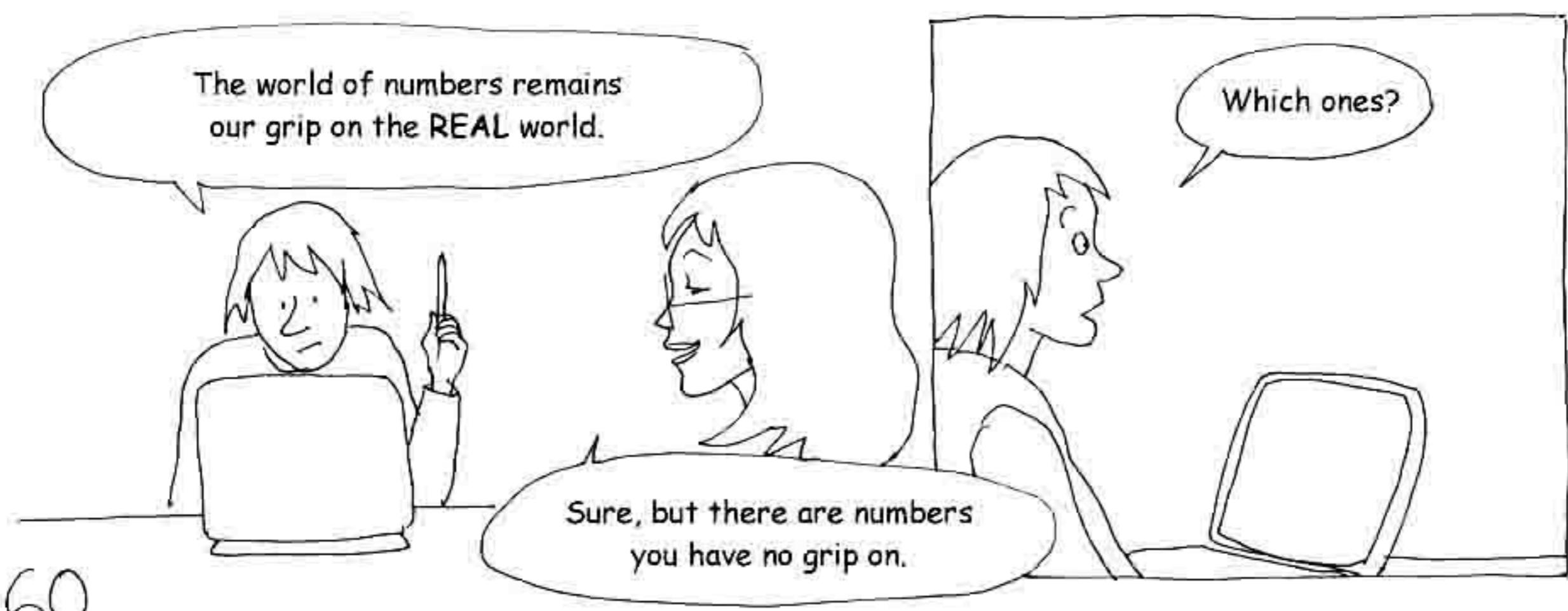
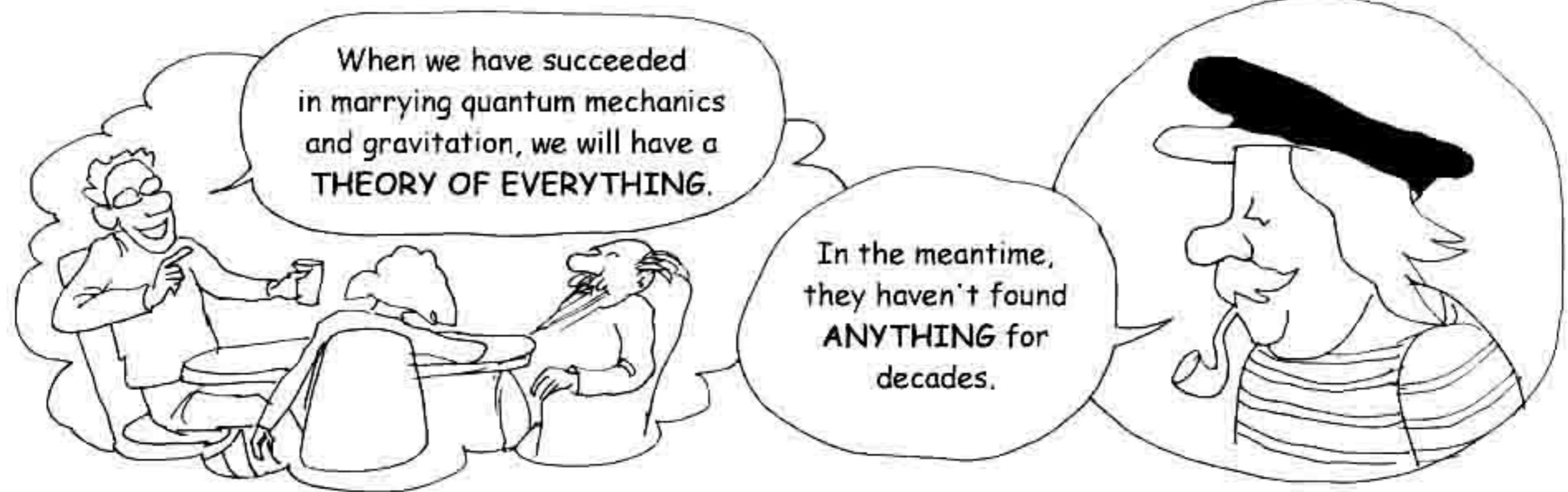
No, a computer scientist. But he says he absorbs quantum physics by osmosis.

Time does not exist...



This naturally emerges from quantum physics, but I'm not going to flood you with equations.

He's our BACKUP GURU.



IMAGINARY NUMBERS.

Exactly!

But that's just a figment
of the imagination!

Humans have given
themselves the means to
think about what they cannot
grasp between their thumb
and forefinger.

Let's see:
with the extension of
positive real numbers to negative
real numbers, this suggested
considering a second universe
where everything is negative:
the masses, the energies...

And even time!

So, by adding positive and negative imaginary
numbers to positive and negative real numbers,
one would have a **SECOND PAIR** of
IMAGINARY UNIVERSES.

And, if the world of real, positive
and negative masses is that of **PHYSICS**,
this other world is that of...

METAPHYSICS!...

JANUS COSMOLOGICAL MODEL

Emerges from the theory of symplectic groups, as formulated by the mathematician Jean-Marie Souriau. Then, the negative world, parallel to ours, asserts its presence. In 2021, together with the mathematician Nathalie Debergh, the group was extended into the complex domain (*), creating a new pair of universes, with imaginary masses and energies, both positive and negative.

Two universes perpendicular to a third one are parallel each other.

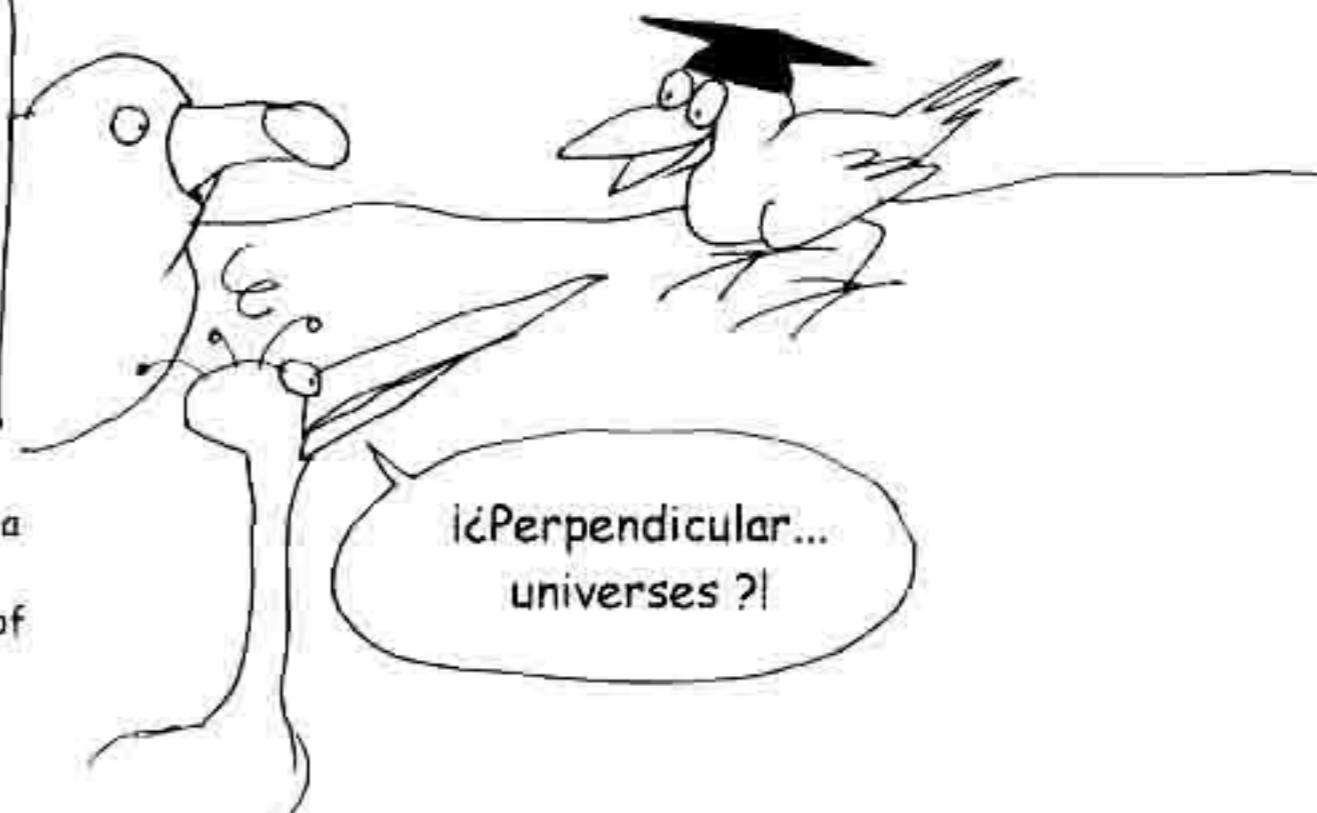
icPerpendicular...
universes ?

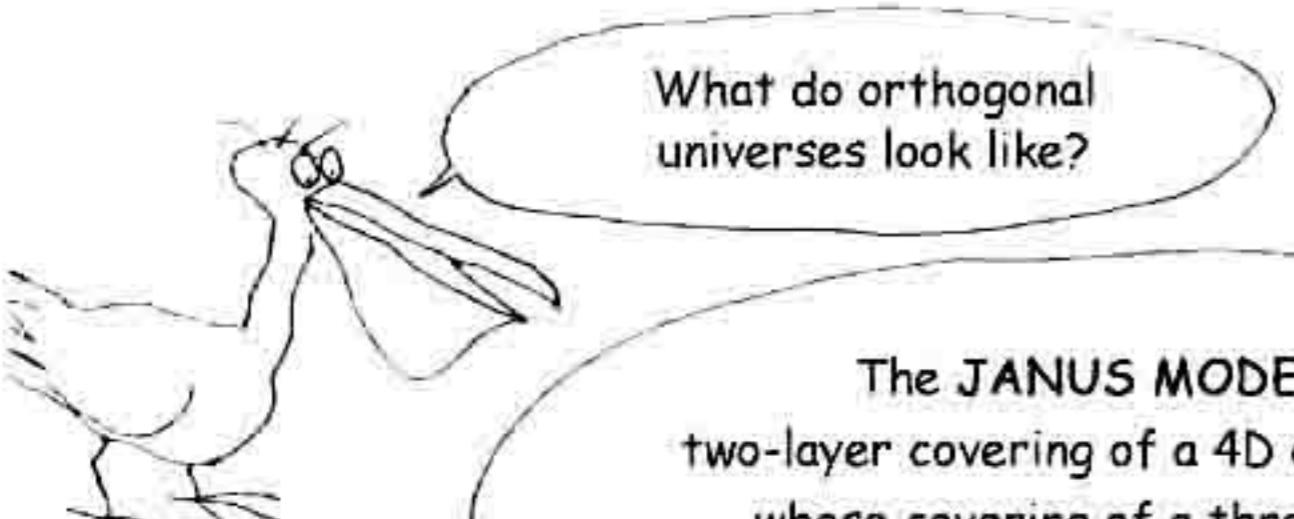
(*) N. Debergh, J.P. Petit, G. D'Agostini (2021). On the Poincaré algebra in a complex space-time manifold. *Journal of Modern Physics*, 12.

(**) J.P. Petit (2025). Study of symmetry through the action on torsors of the Janus symplectic group. *Reviews in Mathematical Physics*, 37(1).

It was very simple.

Chase away the supernatural, and it'll come back at full speed!

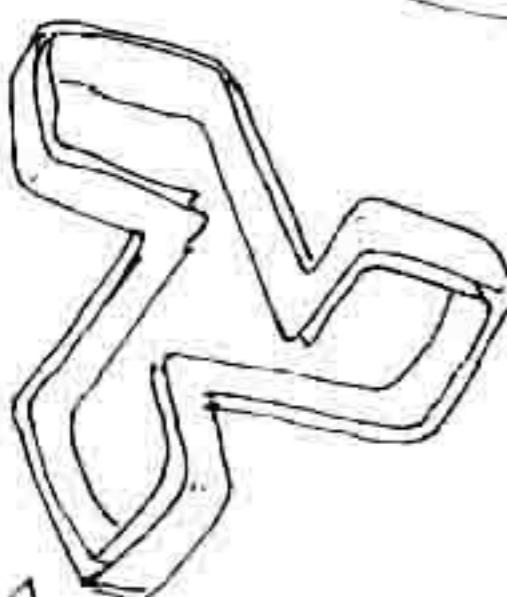




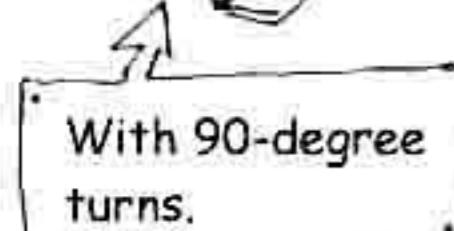
What do orthogonal universes look like?



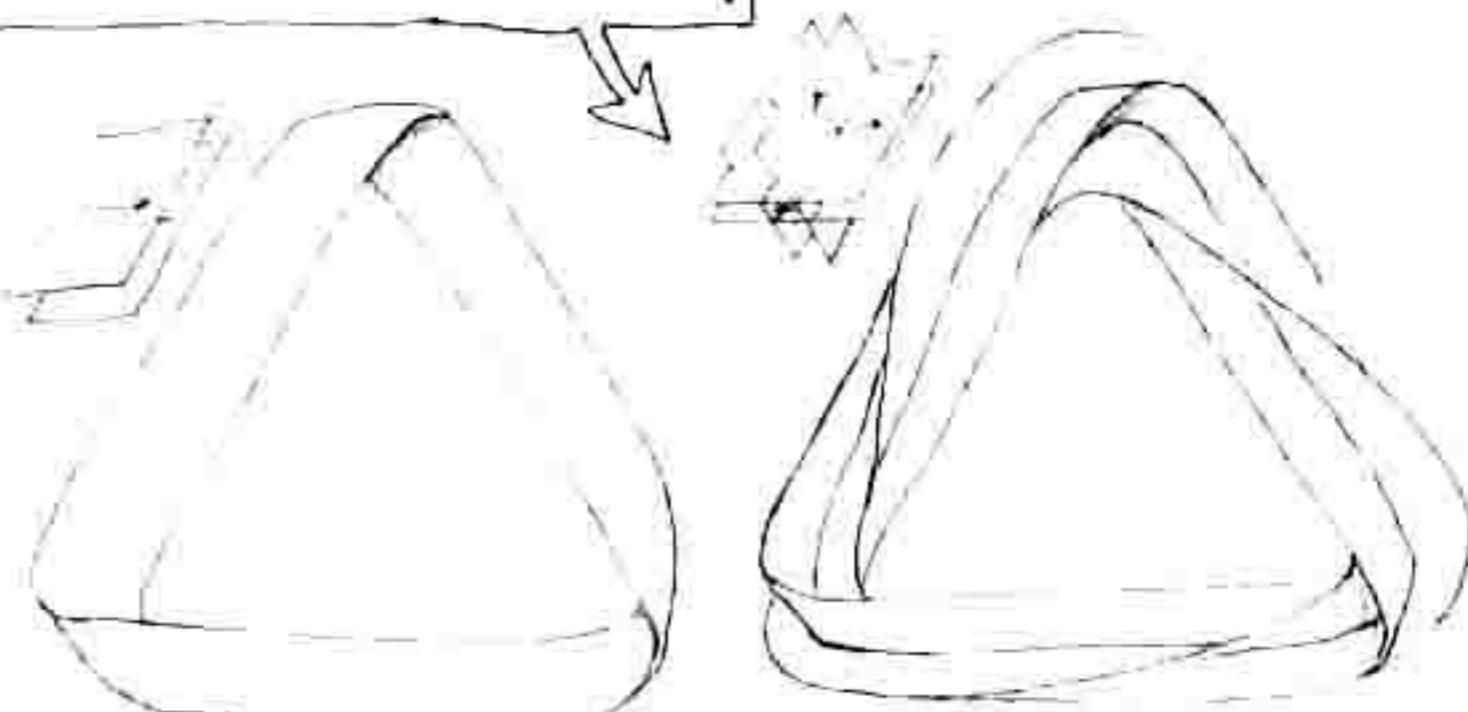
The JANUS MODEL is the two-layer covering of a 4D one-sided space whose covering of a three half-twist Möbius strip gives a 2D image.



You just need to interlock two three half-twist Möbius strips.



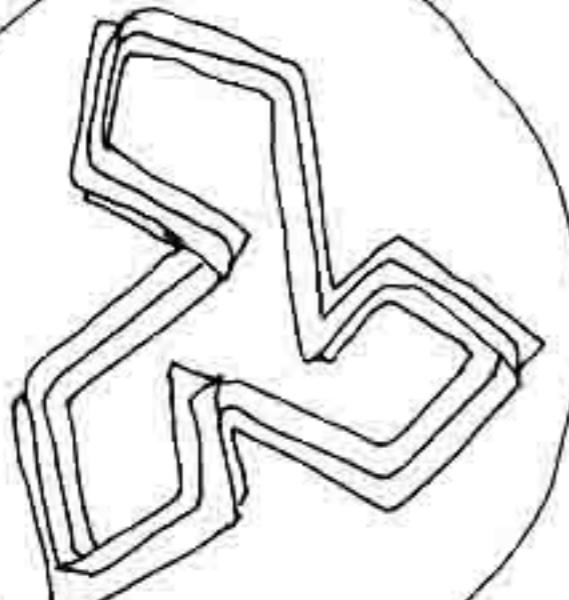
With 90-degree turns.



This may be better understood by interlocking two one-sided ribbons made of flat, straight bands, with 90-degree turns.



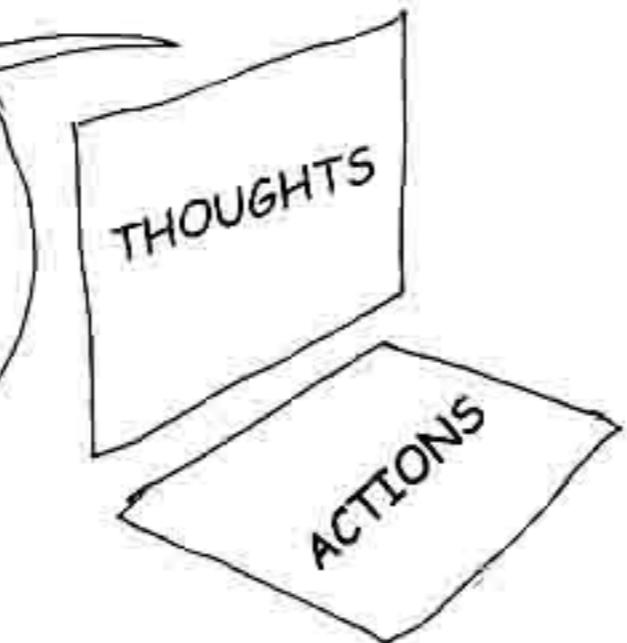
Still, one must be able to perceive it in space, which is not given to everyone.



By bringing antipodal points of a sphere into contact, the neighborhood of its equator configures itself into a two-sheeted covering of a Möbius strip with three half-twists, locally forming its FRONT and BACK. Considering the two-sheeted covering of a perpendicular ribbon gives its i-FRONT and i-BACK.

The Management

All that needs to be remembered is that the world of SENSATIONS, FEELINGS, and THOUGHTS, our DEEP SELF, exists in a METAPHYSICAL SPACE that is ORTHOGONAL to the PHYSICAL WORLD.



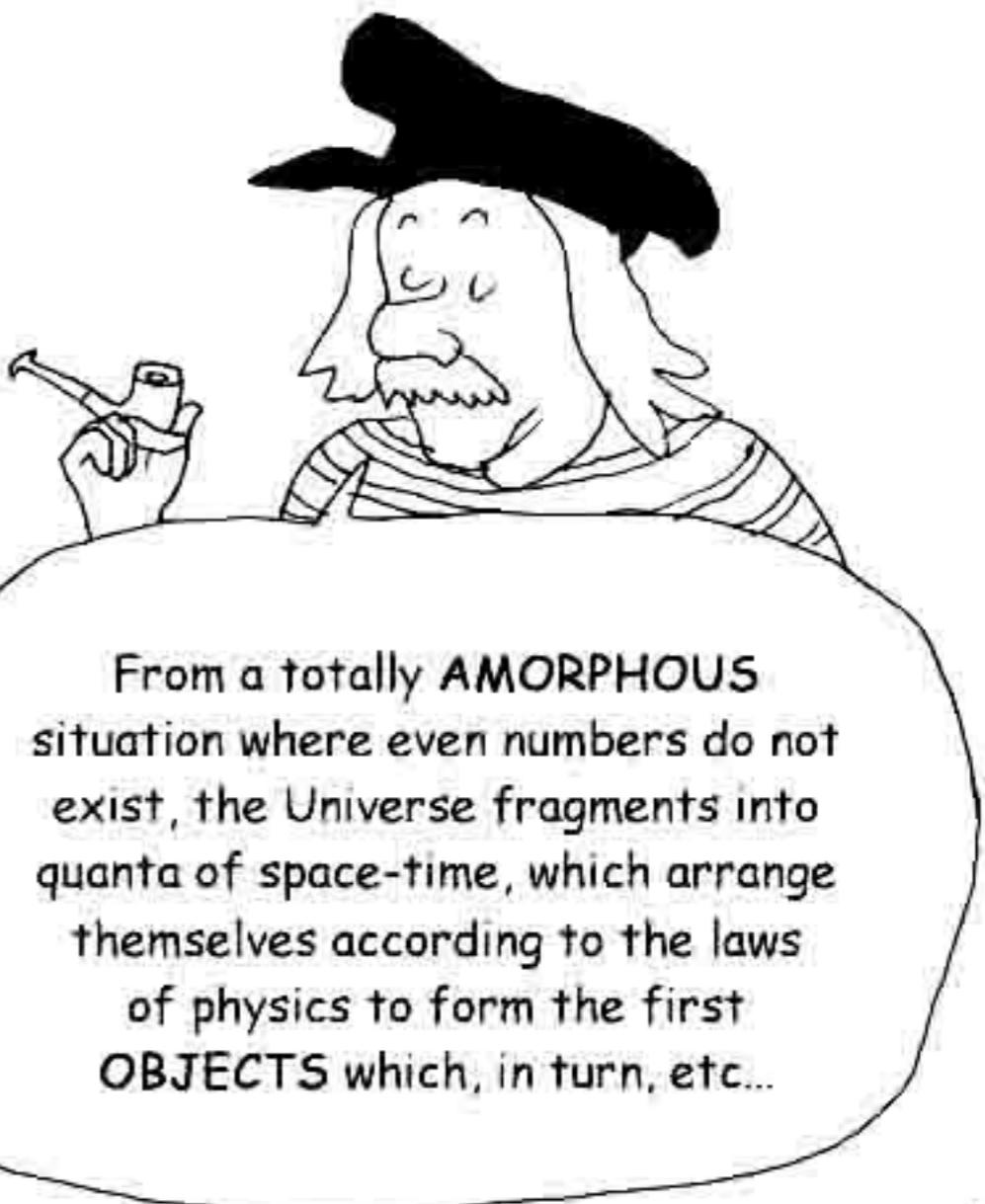
THE UNiVERSE COMPLEXiES AND EXPANDS iTS RELATiONAL FIELD



If we stop asking questions that start with WHY (does the universe exist?), we will limit ourselves to questions that start with the adverb HOW.



Why make it simple when you can make it COMPLICATED?

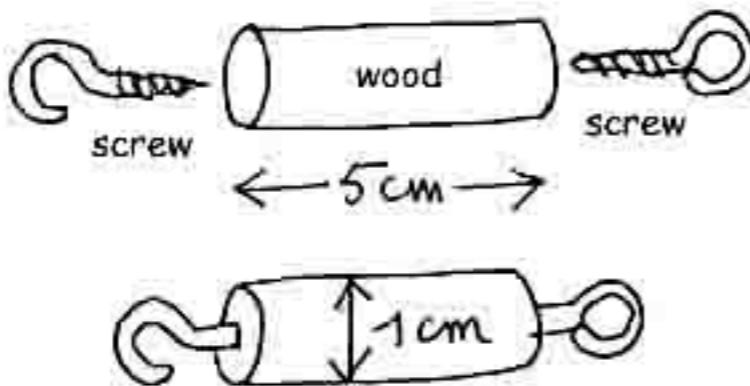


From a totally AMORPHOUS situation where even numbers do not exist, the Universe fragments into quanta of space-time, which arrange themselves according to the laws of physics to form the first OBJECTS which, in turn, etc...

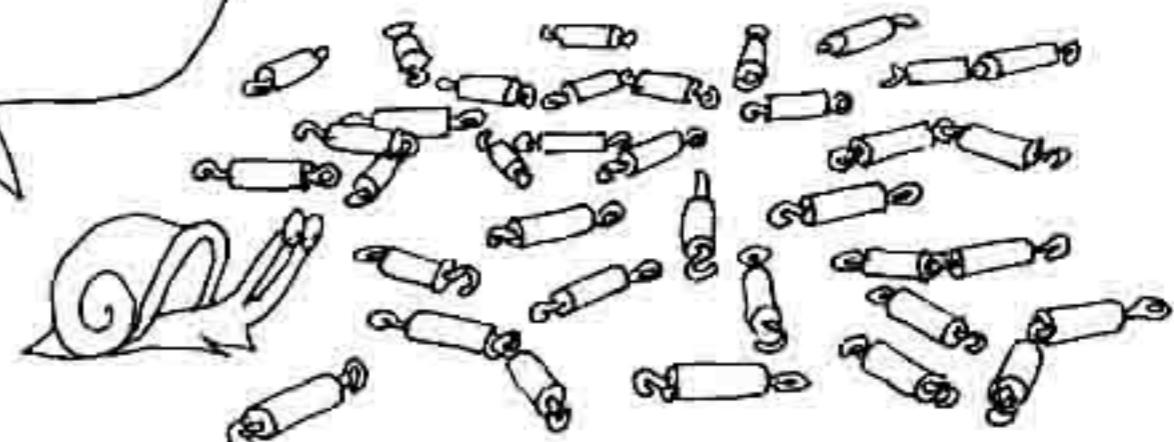
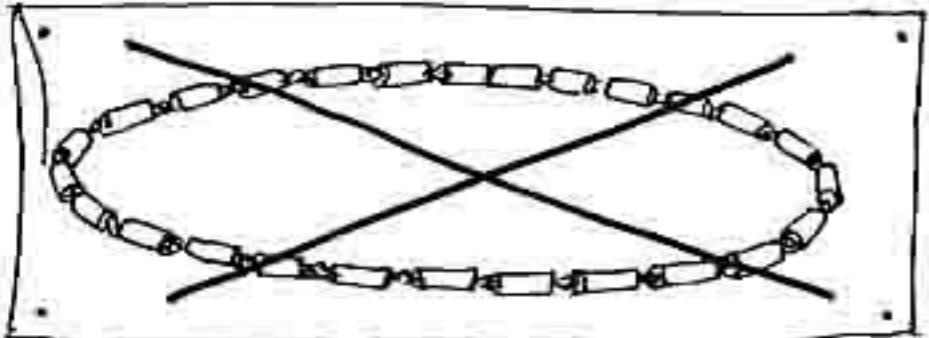
MORPHOGENESIS



• Disorder is not the most probable state for a given system. A simple way to demonstrate this is to make these small objects:

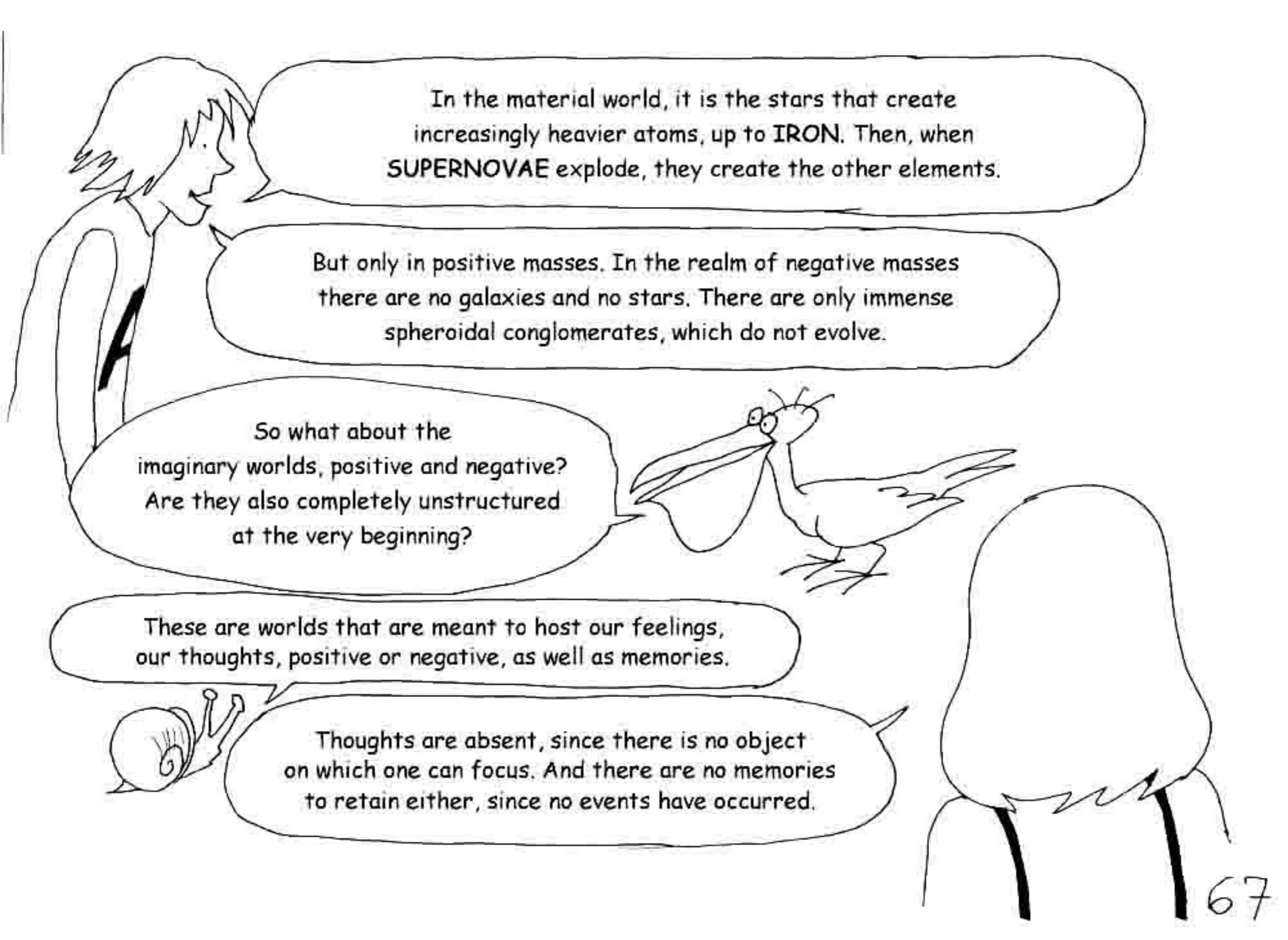


They will never all stick together to form a necklace. But the probability that there isn't any pair of objects stuck to each other is negligible.



You make 50 identical ones.
You put them in a bag,
then shake it all up.

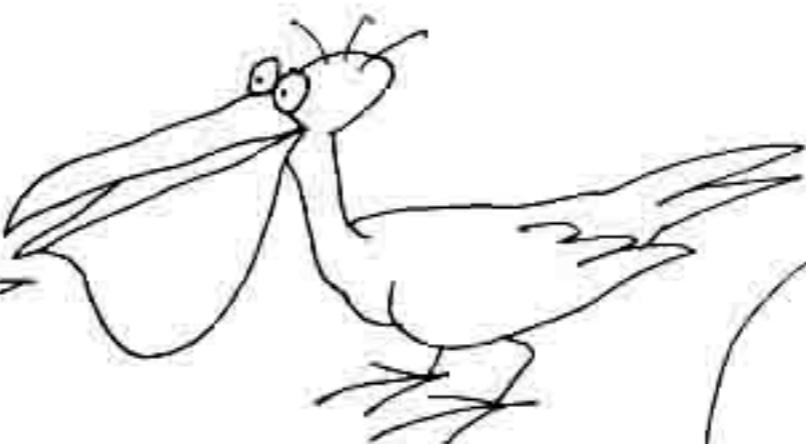




In the material world, it is the stars that create increasingly heavier atoms, up to IRON. Then, when SUPERNOVAE explode, they create the other elements.

But only in positive masses. In the realm of negative masses there are no galaxies and no stars. There are only immense spheroidal conglomerates, which do not evolve.

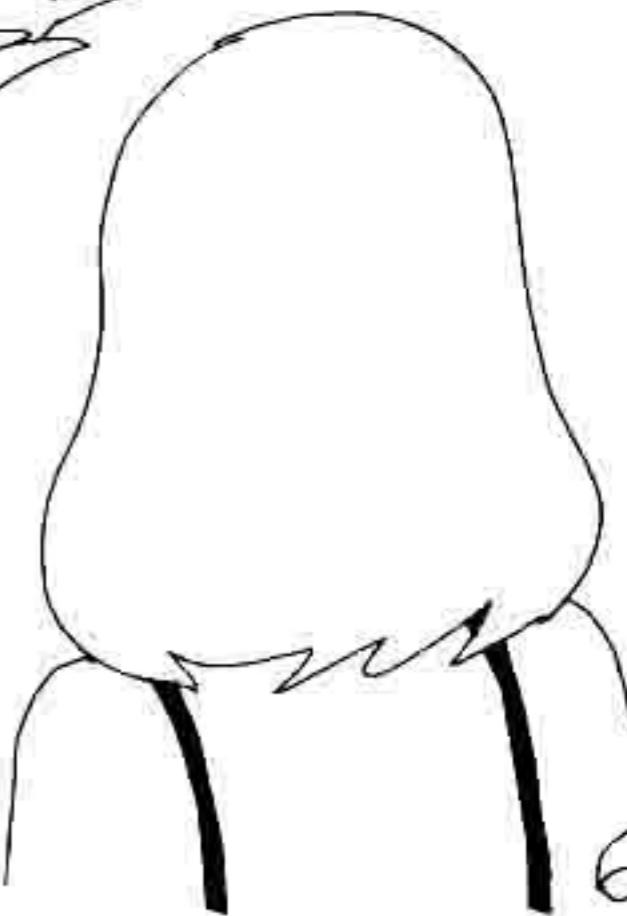
So what about the imaginary worlds, positive and negative? Are they also completely unstructured at the very beginning?



These are worlds that are meant to host our feelings, our thoughts, positive or negative, as well as memories.

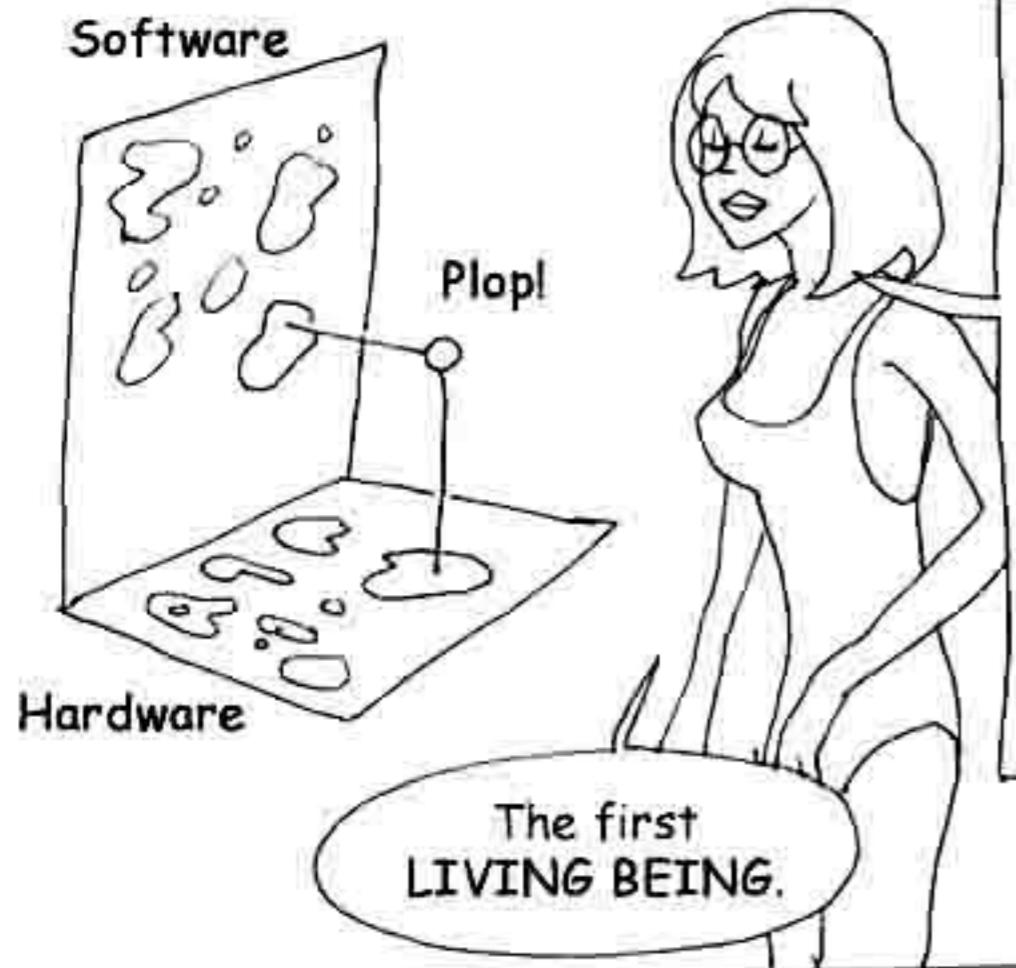


Thoughts are absent, since there is no object on which one can focus. And there are no memories to retain either, since no events have occurred.

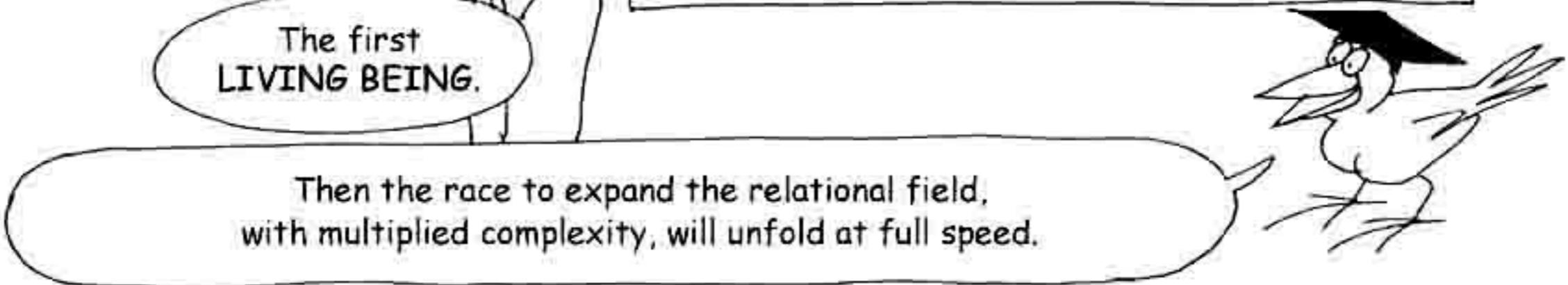


LIFE

One can then only speculate, operating by **ANALOGY** (*) by assuming that it has its own "metaphysical" and morphogenetic laws, like our physical laws, which lead it to become more complex and to weave connections. But, as long as it remains in isolation, it is only populated by vague fantasies, lacking any support, which form and dissolve.



After billions of years of waiting, when conditions are favorable on the surface of the Earth, a transcendent event occurs. A link is established between a structure of the real material world and a metastructure of the imaginary world, through a set of **COMPLEX MASSES** which, having a real part and an imaginary part, can connect these two worlds.



(*) As above, so below.



If what you say is true,
it means that we will never
be able to recreate life
using technology.



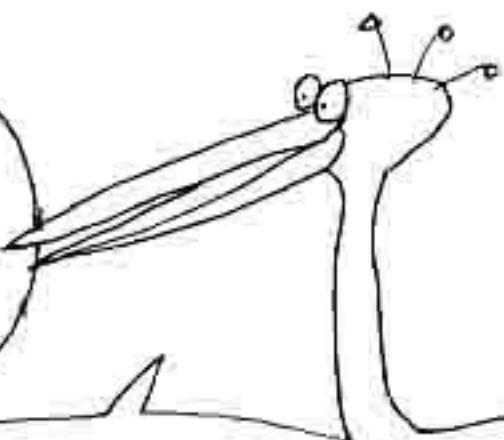
No more than we will ever be able,
as this oddball thinks, to store a human being in memory.



I find this **PHENOMENOLOGICAL** approach, where the
increase in complexity goes hand in hand with the expansion
of the relational field, quite appealing, don't you think?



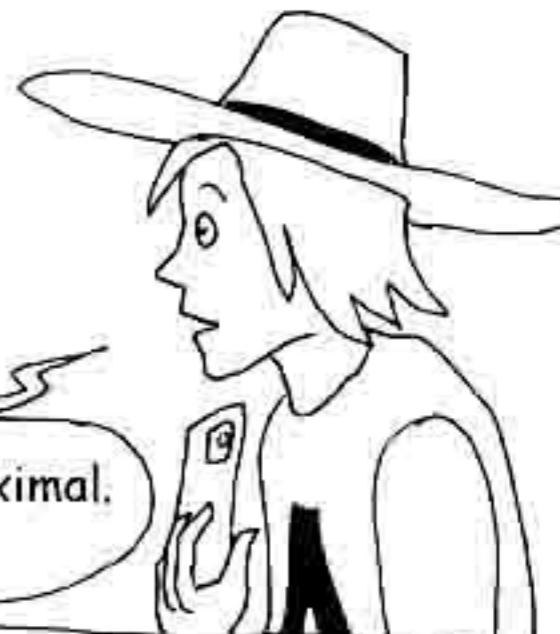
This technology allows us
to communicate. But, on this point,
the loop seems to be
closed to me.



It is true that we are
more complex than jellyfish.
But humans have their
technology.

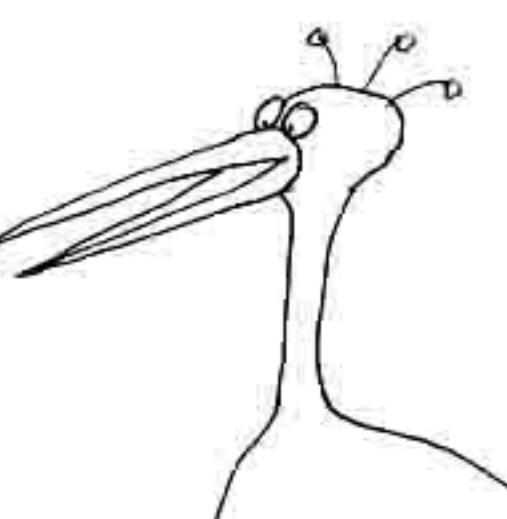


Hello, Noumea?



Today, your smartphone allows you to communicate with the entire world, at any time. And you can send and receive sound and images.

Yes, the expansion of the relational field is maximal. You can't go further!



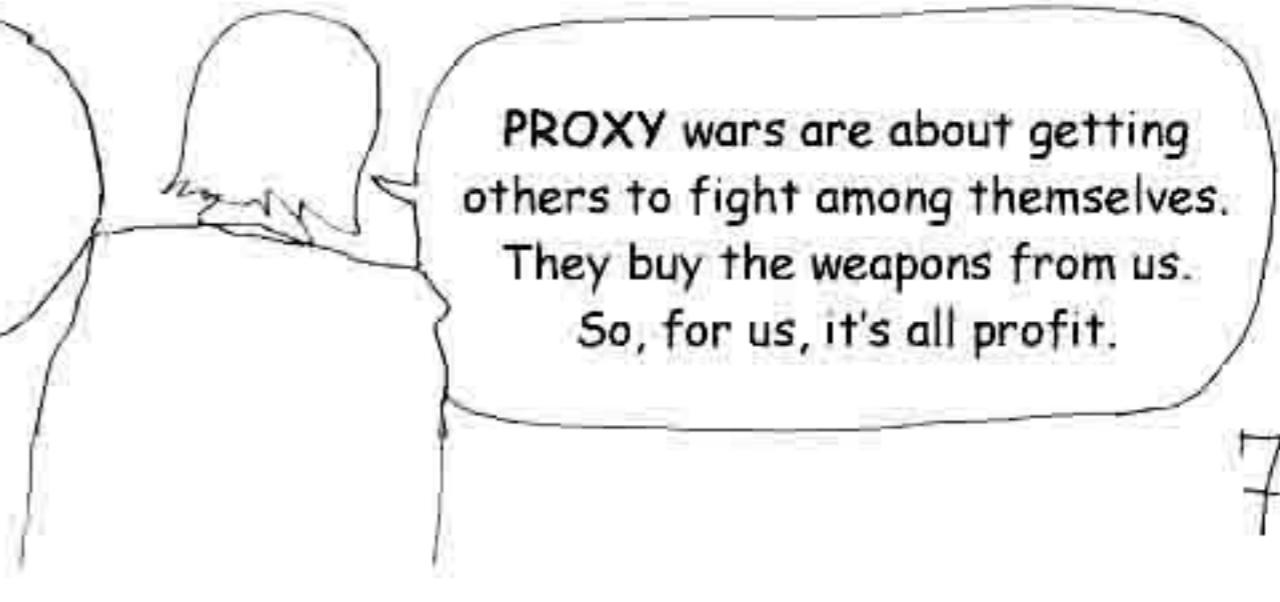
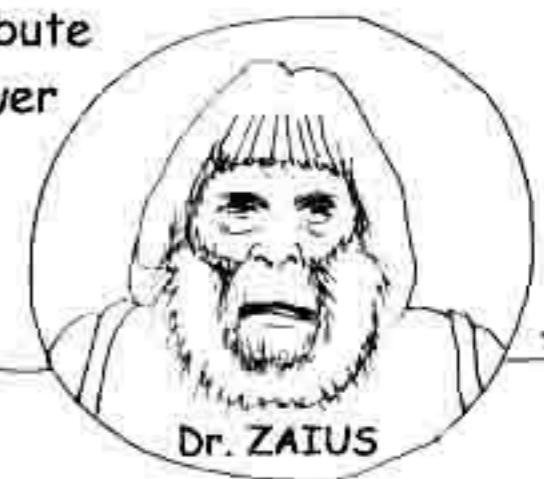
Since life appeared on Earth and bacteria were equipped with flagella to move, finned fish, legged lizards, winged birds, LIFE has done everything to allow this field to expand as if it fundamentally arose from **METAPHYSICAL LAWS**.

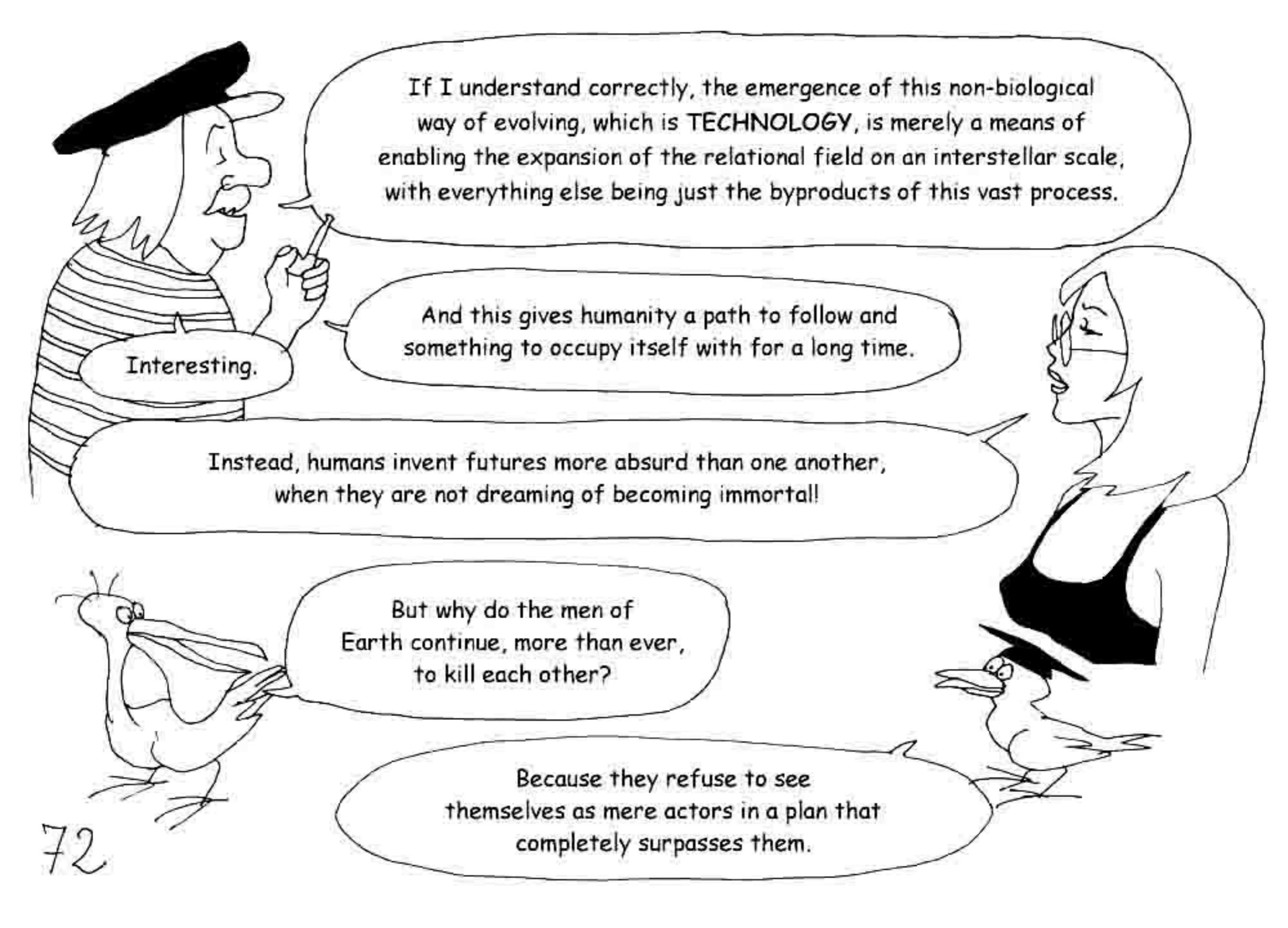
There remained one leap that biological solutions could not achieve: the expansion of the relational field to the scale of communication from stellar system to stellar system.

Thus, the fact that a living species on Earth found itself endowed with means of extra-biological evolution was planned from the very beginning by LIFE as an **EMERGING PHENOMENON**.



But under the pretext that this technology allowed you to dominate and enslave other species, you took yourselves for the owners of this planet, ravaging it, polluting it, to the point of making it unfit for any life. You invented gods for yourselves, laws always benefiting the ethnicity that claimed them, taking yourselves for the center of the Universe. Your scientists? Unable to bear their knowledge being challenged by more advanced knowledge, after having proclaimed that Earth was the only planet bearing intelligent life, cling to the idea that interstellar travel is impossible. Yet, a new attribute had **EMERGED**, granting you the power to anticipate the consequences of your actions, which you call **MORAL CONSCIOUSNESS**.





If I understand correctly, the emergence of this non-biological way of evolving, which is TECHNOLOGY, is merely a means of enabling the expansion of the relational field on an interstellar scale, with everything else being just the byproducts of this vast process.

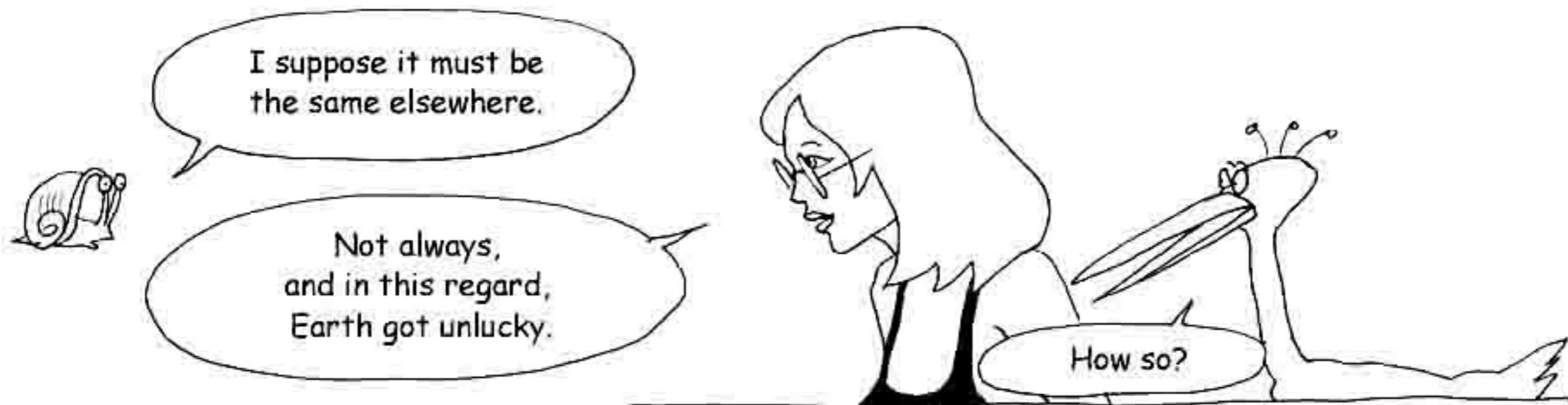
Interesting.

And this gives humanity a path to follow and something to occupy itself with for a long time.

Instead, humans invent futures more absurd than one another, when they are not dreaming of becoming immortal!

But why do the men of Earth continue, more than ever, to kill each other?

Because they refuse to see themselves as mere actors in a plan that completely surpasses them.



At the time of its formation, Earth was a ball of magma surrounded by a thin solidified layer.

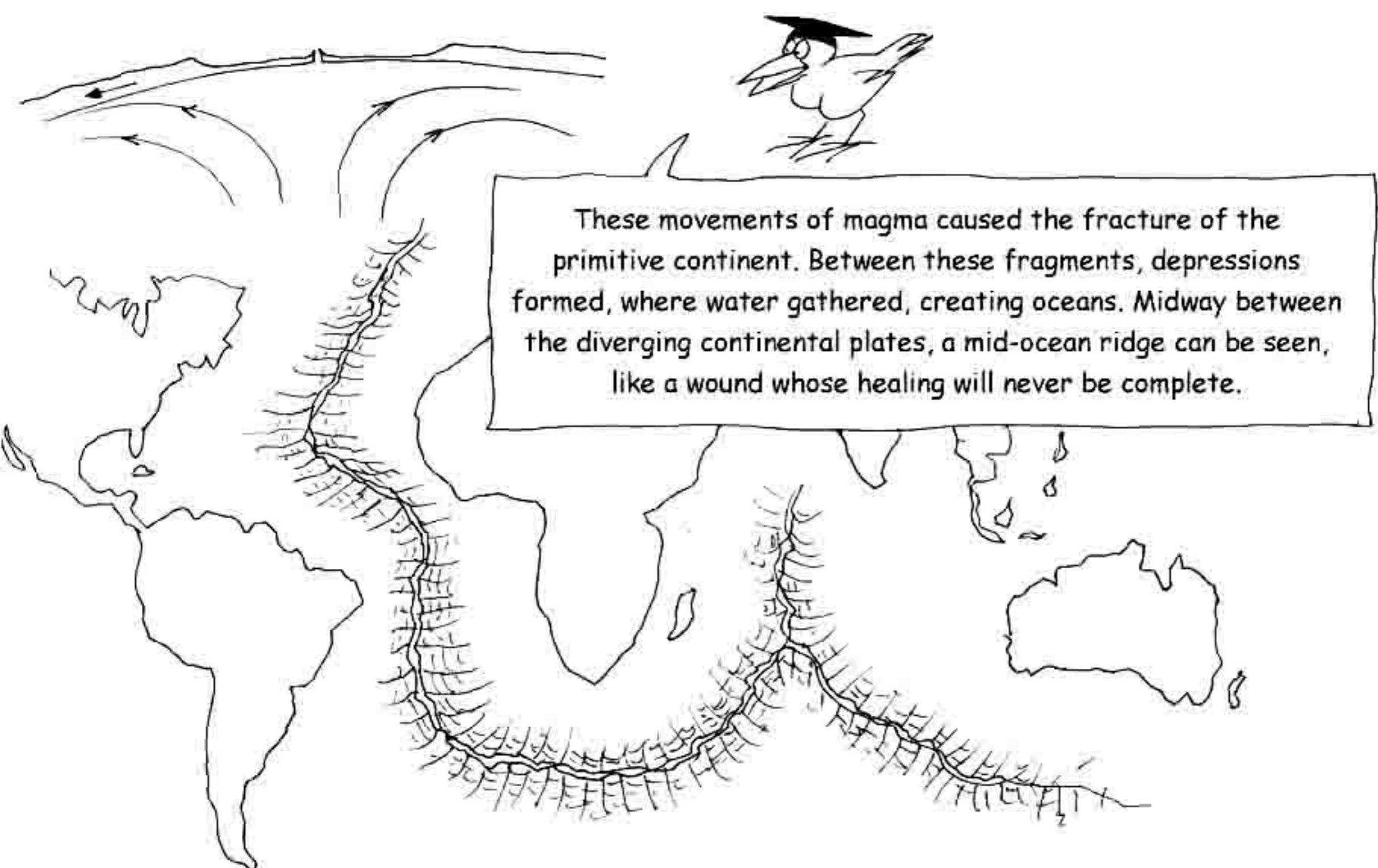


Impacts from wandering objects—meteors, comets (which bring water)—eventually stopped. The gaseous emissions from volcanoes formed its primitive atmosphere. If everything had evolved normally, liquid water would have surrounded a single continent, flat as a hand.

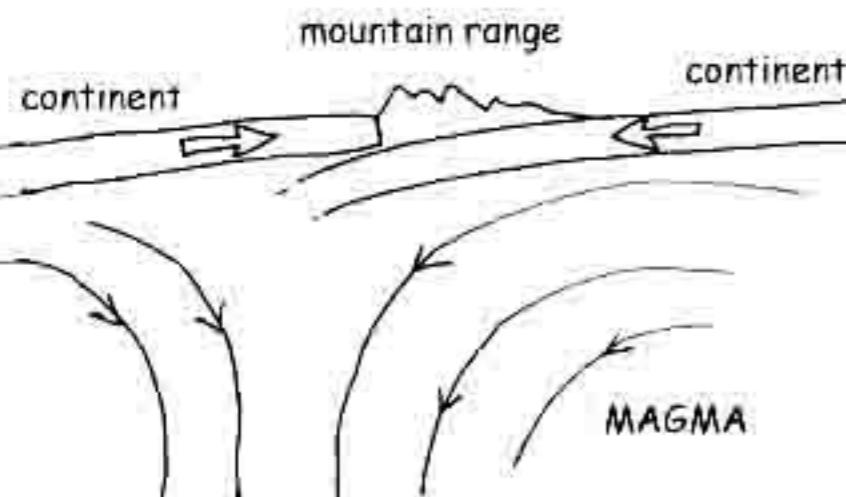


But Earth had to cross paths with a planet the size of Mars, which collided with it. Matter was ejected, which formed the **MOON**. The celestial body brought its kinetic energy $\frac{1}{2}MV^2$, which was converted into heat, warming the Earth's magma, where **CONVECTION CURRENTS** appeared.





These movements of magma caused the fracture of the primitive continent. Between these fragments, depressions formed, where water gathered, creating oceans. Midway between the diverging continental plates, a mid-ocean ridge can be seen, like a wound whose healing will never be complete.



Elsewhere, the plates, pushed against each other by currents in the magma, overlap. The subducting plate melts and mixes with the magma. The other behaves like ice floes drifting on a river, which compress the snow on the surface as they overlap. This is how mountain ranges such as the Alpine Arc, the Andes, and the Himalayas are formed.



The result is that instead of a **SINGLE BIOME**: the initial continent, free of geographical barriers, **LIFE** will emerge and develop within hundreds of different biomes. The Earth thus possesses **BIODIVERSITY**, across all kingdoms, hundreds of times greater than on other planets.

But the result will be the emergence of genetically different human races (*) that will compete for territories, while becoming inter-fertile over time. Beyond that, this will lead to the rise of hundreds of cultures, languages, beliefs, and technological levels that are extremely diverse, ranging from the Stone Age to the space station. So many ethnic groups completely incapable of seeing themselves as a whole, and therefore doomed to behave as competing entities, and thus as enemies!

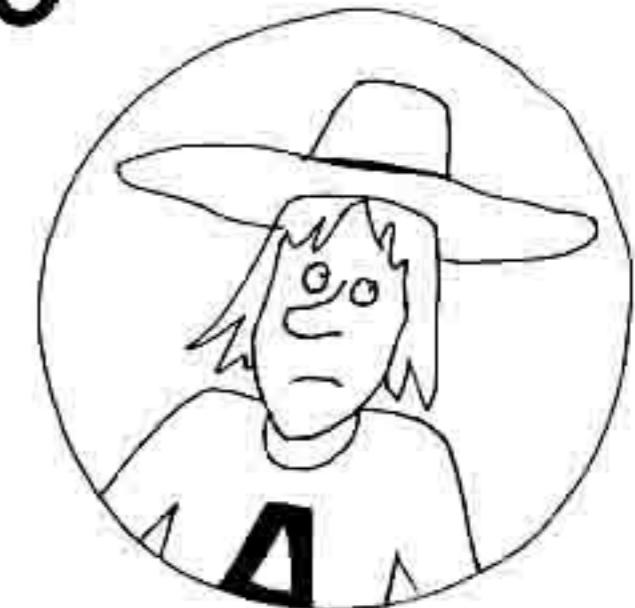
(*) Something we are only beginning to glimpse.



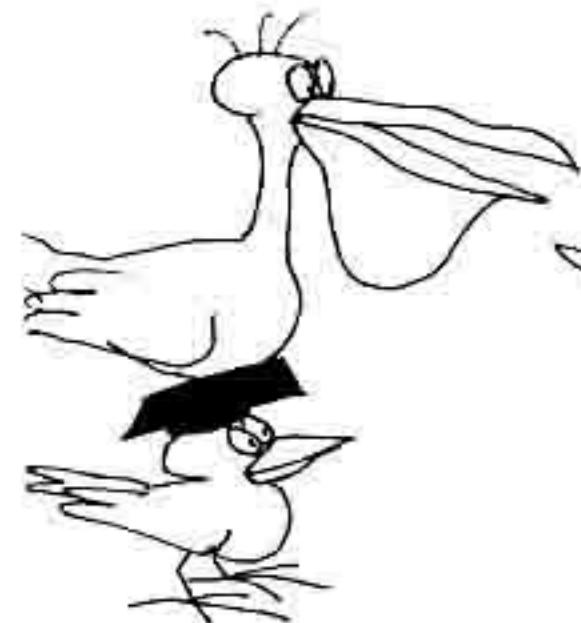
THE NOOSPHERE^(*) DRIVES THE LiViNG

For scientists, therefore materialists, only real, positive masses exist. Evolution is entirely driven by chance. Humans' thoughts, memories, and feelings are just connections in a vast network of neurons. Religions are merely cultural elements, like gods. And after death, there is nothing.

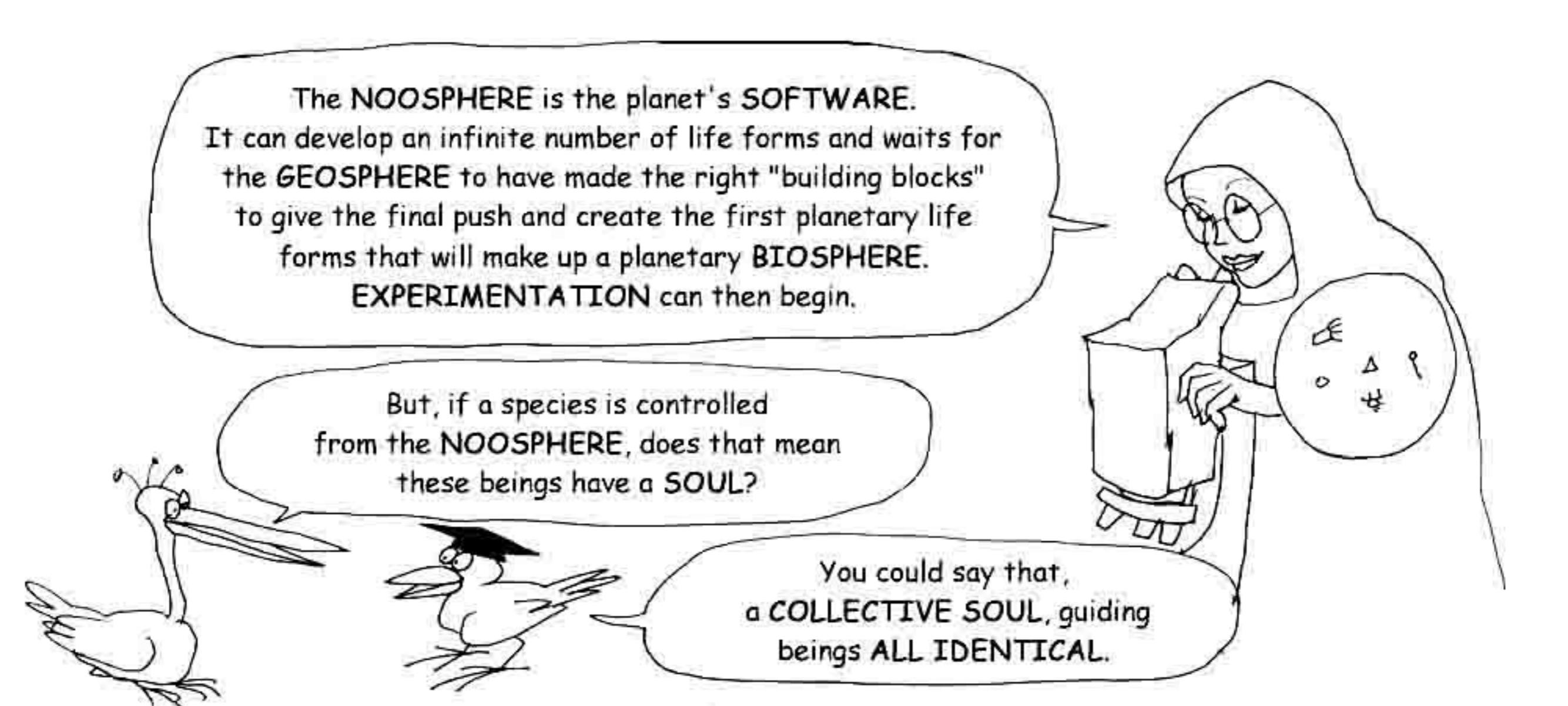
The Management



Group theory proposes a universe with four types of matter. There are real masses, positive and negative, as well as imaginary masses, also positive and negative. Initially, these real and imaginary worlds, born together, do not communicate. Real masses form the Janus universe. The imaginary world is also assumed to be morphogenetic. For the first few billion years, it structures itself according to its own **METAPHYSICAL LAWS**. We decide to give it the name NOOSPHERE. We assume that these two worlds have the same goal: **TO BECOME MORE COMPLEX** and/or **TO EXPAND THEIR RELATIONAL FIELD**.



(*) From NOUS, in Greek, the Spirit.



The NOOSPHERE is the planet's SOFTWARE.
It can develop an infinite number of life forms and waits for
the GEOSPHERE to have made the right "building blocks"
to give the final push and create the first planetary life
forms that will make up a planetary BIOSPHERE.
EXPERIMENTATION can then begin.

But, if a species is controlled
from the NOOSPHERE, does that mean
these beings have a SOUL?

You could say that,
a COLLECTIVE SOUL, guiding
beings ALL IDENTICAL.

The history of computing is a complete simulation of the progression of living beings in complexity. The elements of the zoo and phytoplankton have no living memory. Their neural systems are comparable to PROCESSORS. Beings like sea urchins can memorize a path to food. They therefore have RAM. When living beings are capable of learning, they already have one foot in artificial intelligence.

COLLECTiVE SOULS iNDiViDUAL SOULS



One can consider the Universe as a vast living being whose sole purpose is to develop, to grow in wealth and complexity, by developing all forms of connections, just as, from a single cell, an embryo forms and eventually becomes a living being, in all its richness and functionality (*).

For billions of years, this evolution took place on the scale of planets with their own **GEOSPHERES**, **BIOSPHERES**, and **NOOSPHERES**. But, logically, it will continue through mergers of **BIOSPHERES** and **NOOSPHERES**, and so on...



This is what Earthlings refuse to consider, curling up in their shells.

(*) A human embryo transforms into a human being by going through all the stages of biological evolution. It is said that **EMBRYOGENESIS** mirrors **PHYLOGENESIS**.

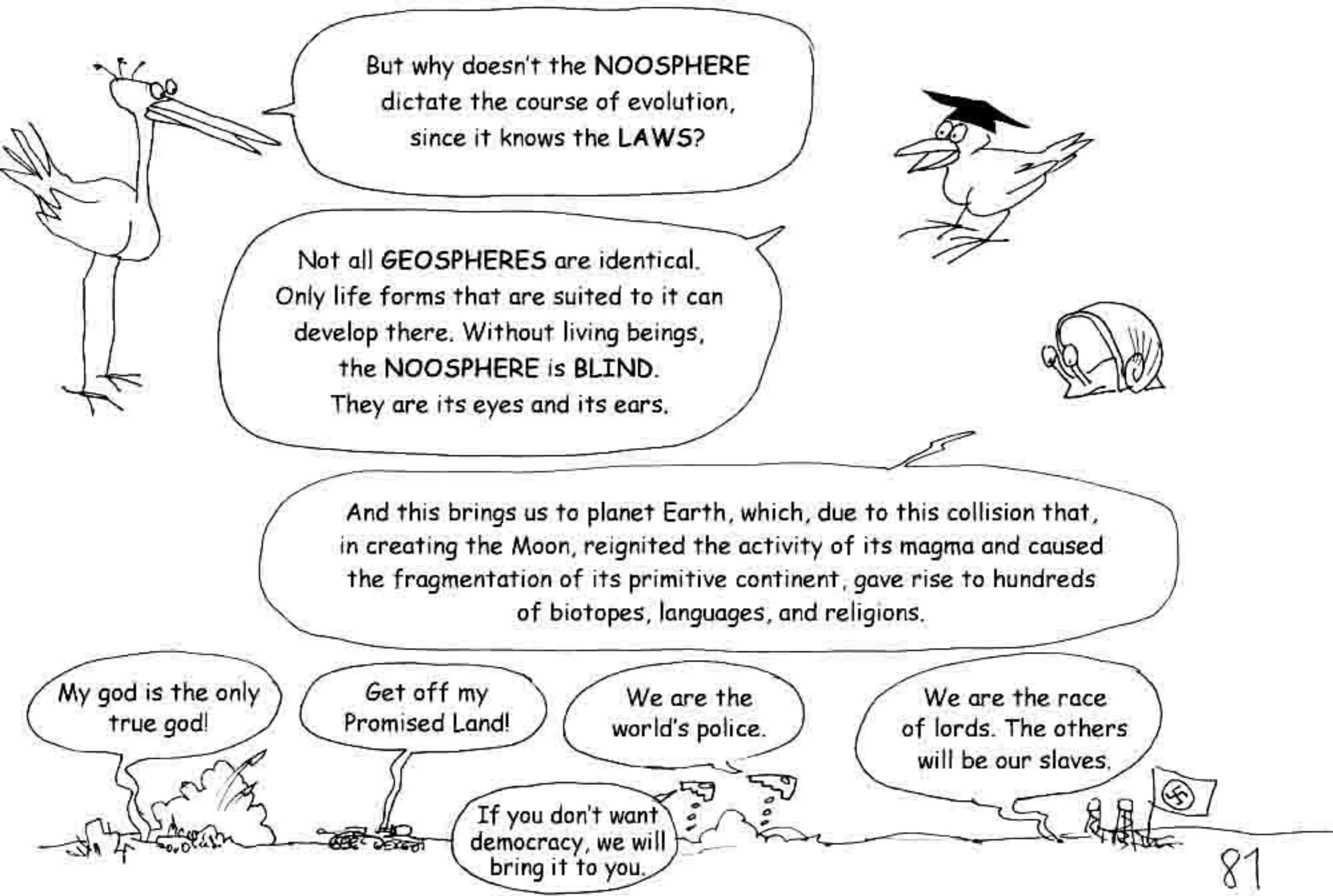
Scientific activity, supported by technology, is a continual exchange between interpretation, modeling, theoretical speculation, and the acquisition of new data through observation and experimentation. This is how we explore ever-expanding portions of our biotope and physical environment. LIFE is the "solution" found by the NOOSPHERE to trigger an acceleration of general evolution. It is the THEORIST, and LIVING BEINGS are its experimental subjects. It is capable of developing all the PLANS for all possible forms of life, derived from METAPHYSICAL LAWS. It then tests these forms of life, compatible with the physical environment. When a form of life is no longer suitable, an evolutionary pressure emerges. The NOOSPHERE then secretes a range of mutations, within which NATURAL SELECTION performs a sorting. It continually grants living beings more AUTONOMY, both physical and psychological. The successive leaps are the acquisition of MEMORY, INTELLIGENCE, and then RESPONSIBILITY by enabling individuals to anticipate the consequences of their actions.

The Management

You guys are useless! I have a memory. I can remember a route to food and avoid a region where I've had trouble!



Exploring planets other than the MOON is no longer possible by remote-controlling our robots. We need to equip them with artificial intelligence. This way, they will transmit their observations and the results of their experiments to us.





When one grants a creature autonomous intelligence, it is predictable that it will seek to understand the world in which it lives.

Based on what is shown to it.



The Sun's magnetic field is quadipolar. It has two north poles and two south poles. It emits **STELLAR WIND** in jets from its four poles. And, as the Sun rotates, these are like the water jets from garden sprinklers. Moreover, like the Earth's magnetic field, it occasionally flips.

During an eclipse, these curved plasma jets become visible.

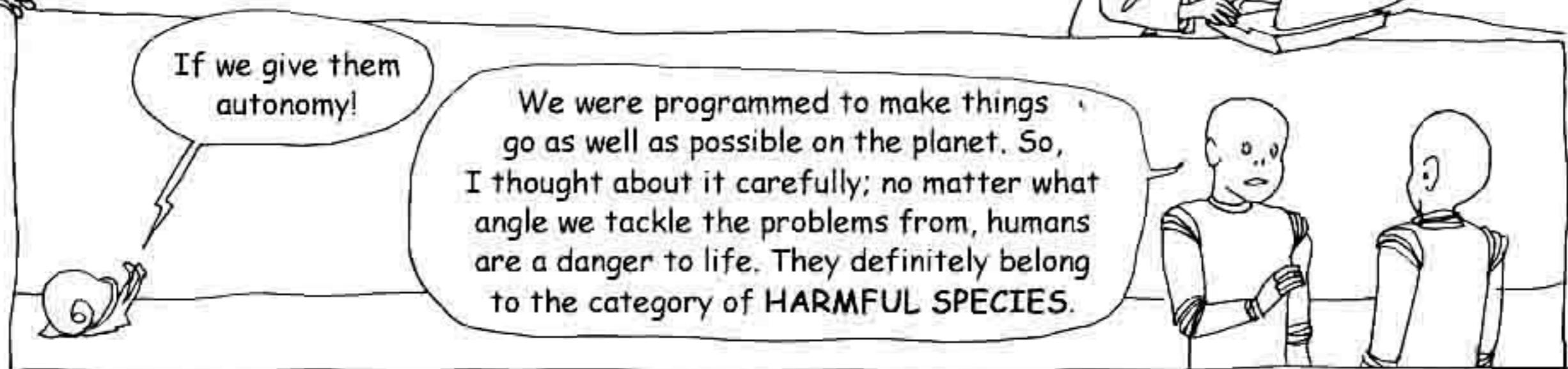
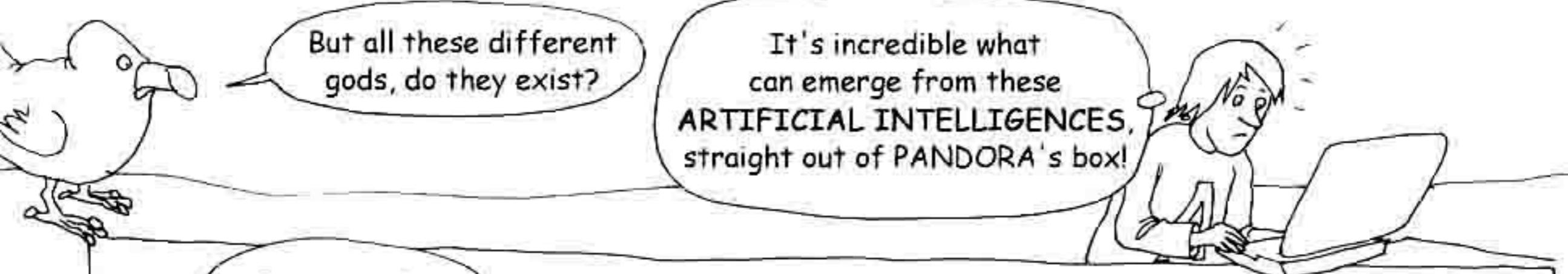


Look! I was right. God exists, and He manifests Himself. Prostrate yourselves face down, for one cannot gaze upon the face of God with impunity!



By this sign, He designates our people as the one that will rule over the other peoples.

As soon as natural phenomena get involved...



Amid all these beliefs, there is the message from hardcore scientists :



Nothing exists except what we find here on Earth.
Life appears and develops purely by chance.

The PARANORMAL is nonsense!



Yet, all without exception aim at two paranormal phenomena:
access to CONSCIOUSNESS and DEATH.

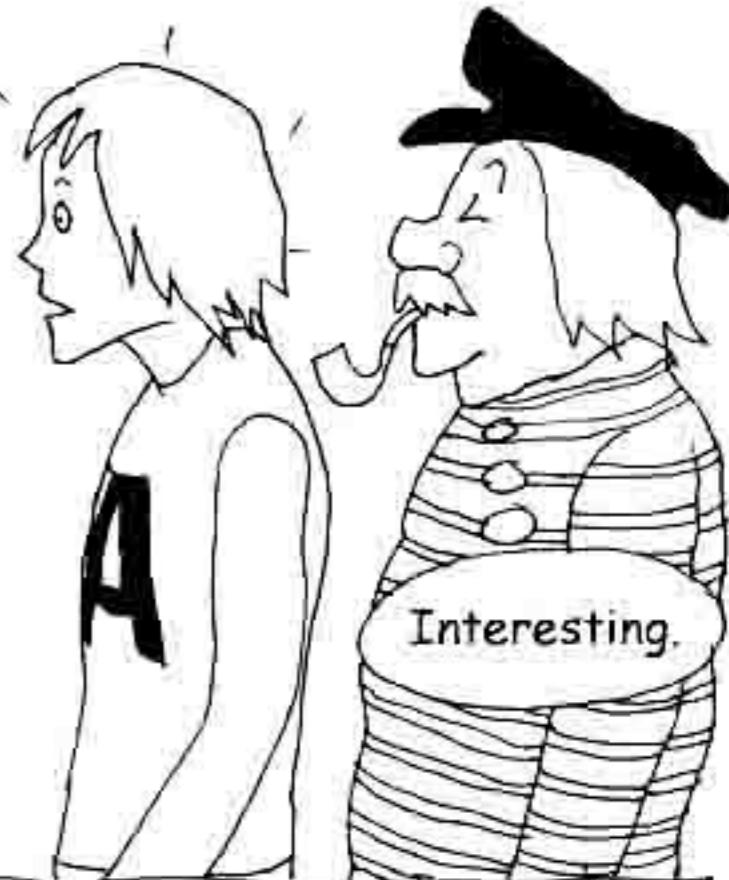


But if the NOOSPHERE governs living beings, in turn, it is the thoughts of humans, both positive and negative, that are reflected in it. It is therefore a reflection of complete planetary cacophony. Our NOOSPHERE is fragmented into countless islets, reflecting the fragmentation of human society into numerous ethnicities, beliefs, or languages. Thoughts and beliefs, if shared by large masses of humans over long periods of time, create EGREGORES, which eventually become endowed with independent thought and the ability to act.

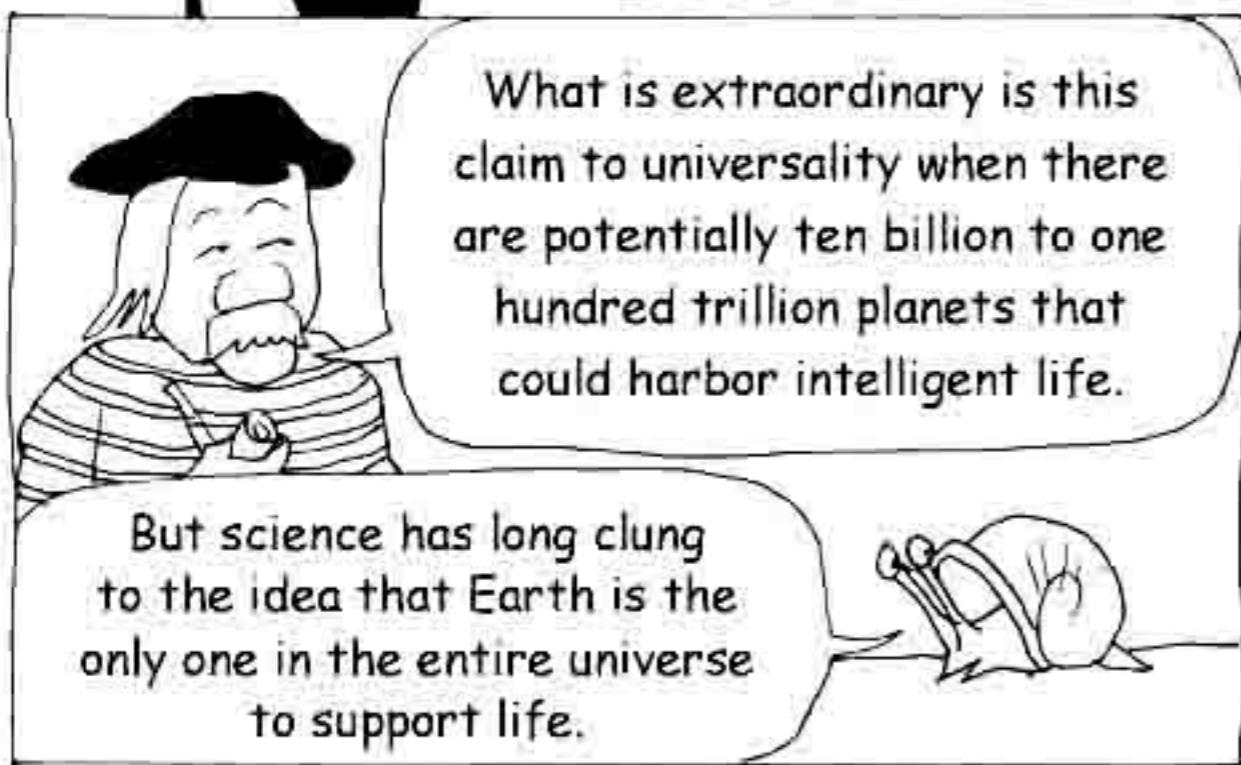


What you are suggesting is that our gods would be the equivalent of our artificial intelligences, in the NOOSPHERE?

The difference being that AIs here on Earth cannot integrate emotions, desires, or feelings. They feel **NOTHING**. EGREGORS are built from everything that is part of the NOOSPHERE, and feelings, memories, and dreams are part of it.

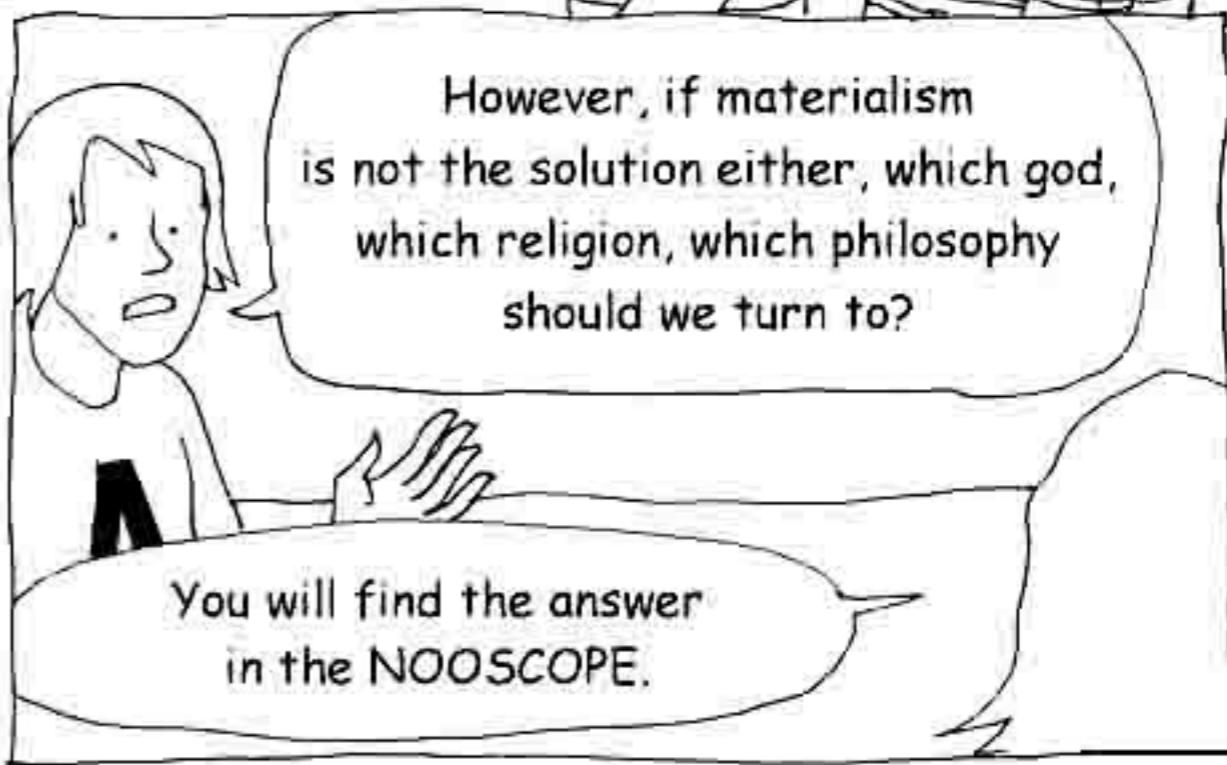


Interesting.



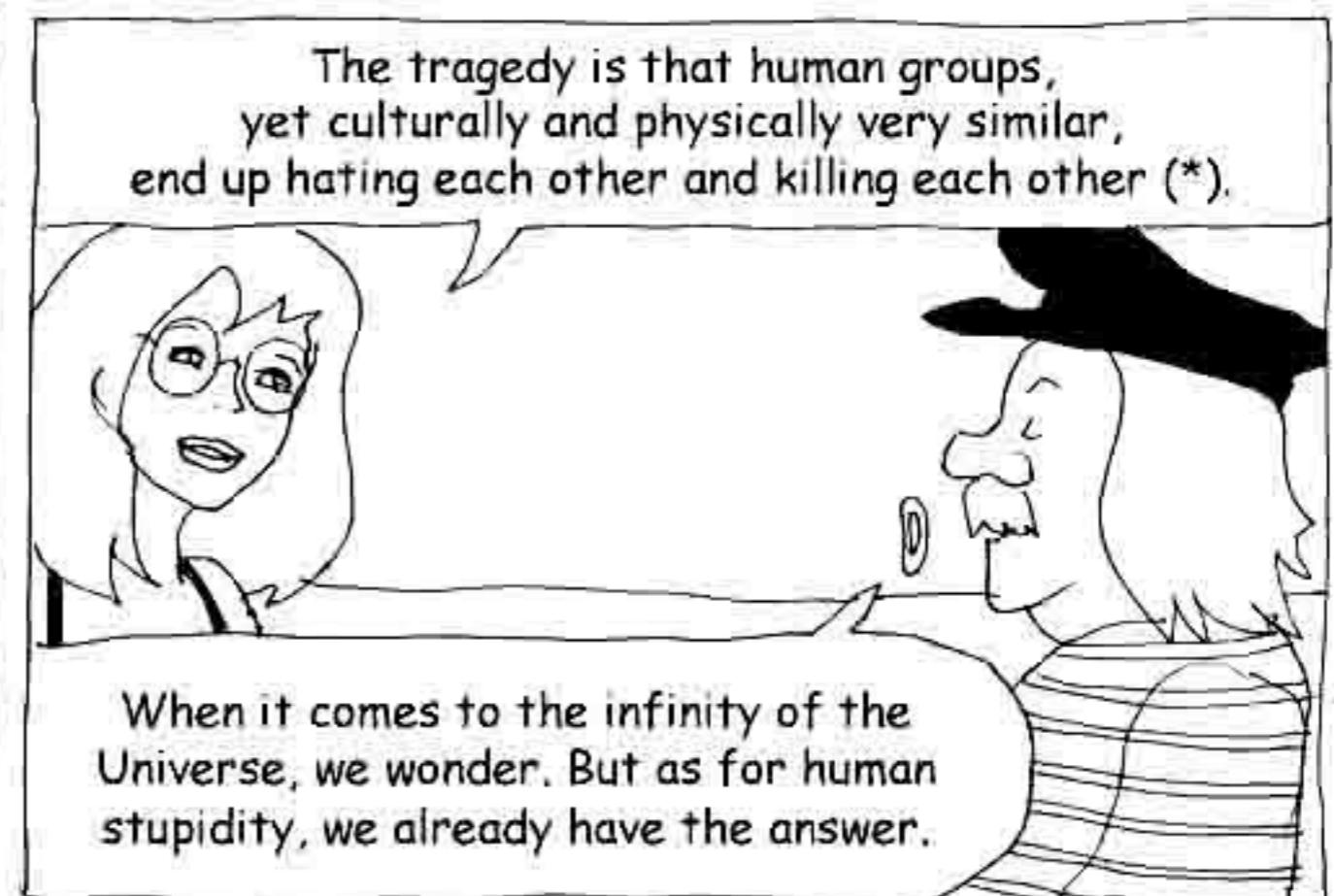
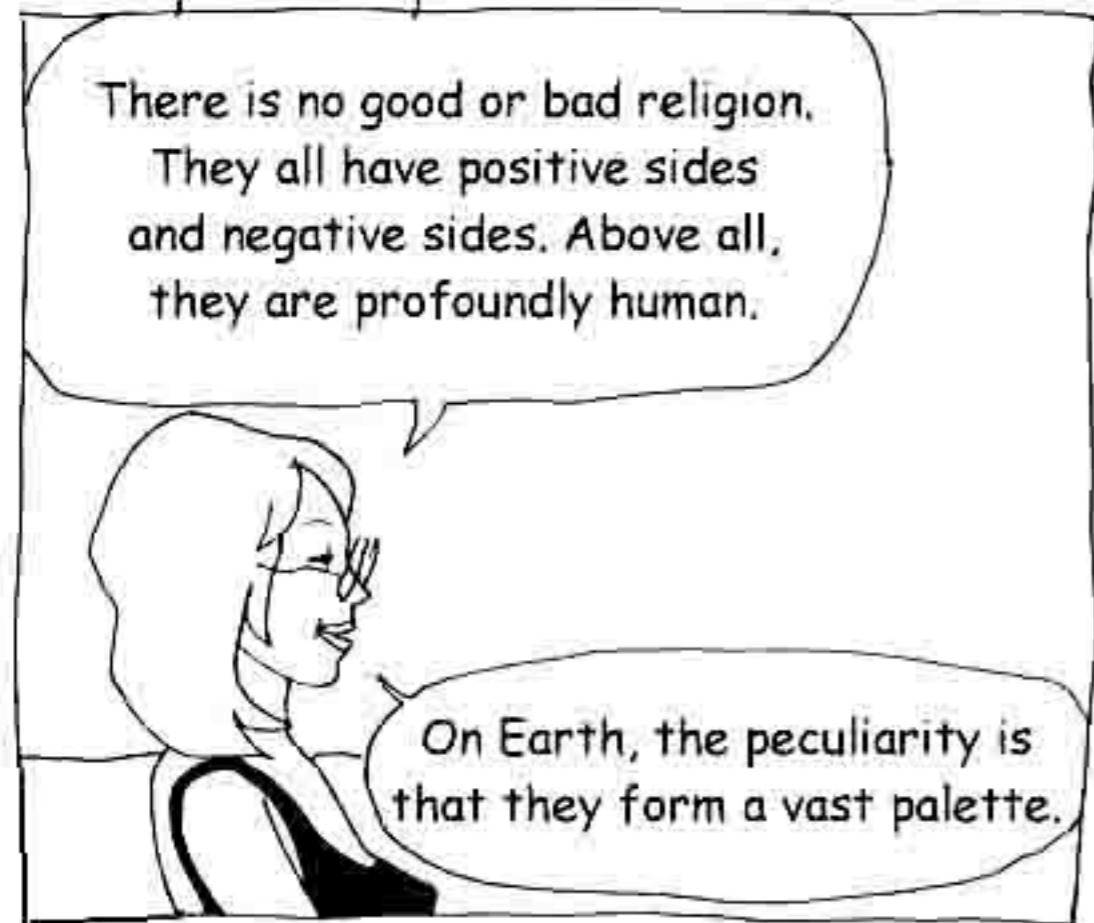
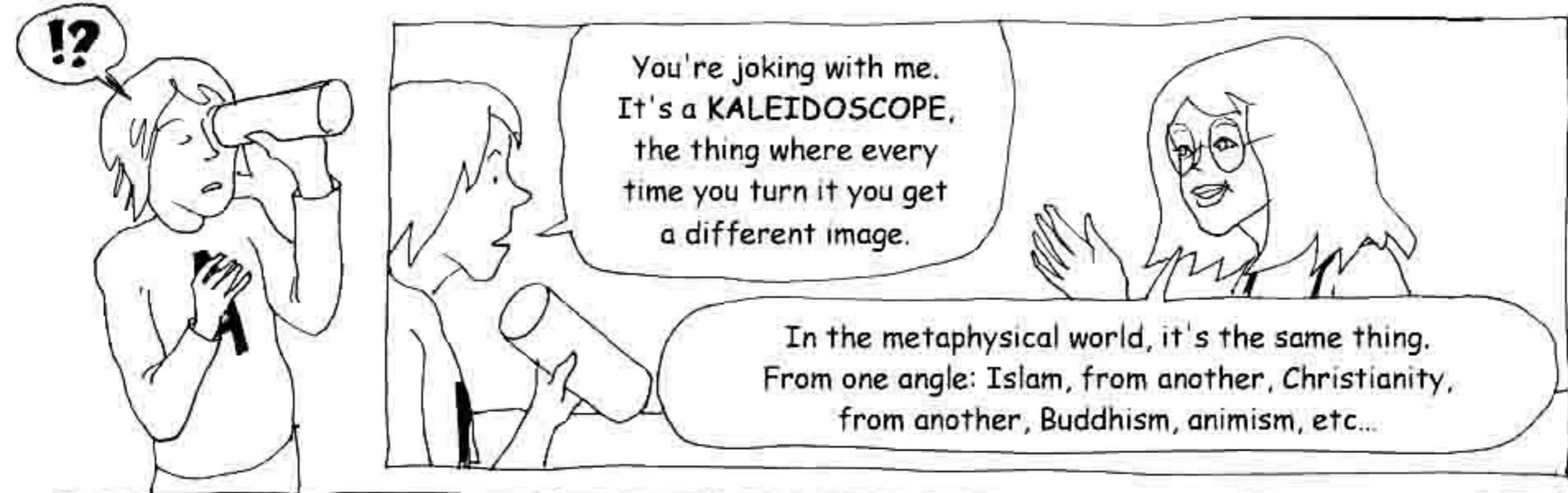
What is extraordinary is this claim to universality when there are potentially ten billion to one hundred trillion planets that could harbor intelligent life.

But science has long clung to the idea that Earth is the only one in the entire universe to support life.



However, if materialism is not the solution either, which god, which religion, which philosophy should we turn to?

You will find the answer in the NOOSCOPE.

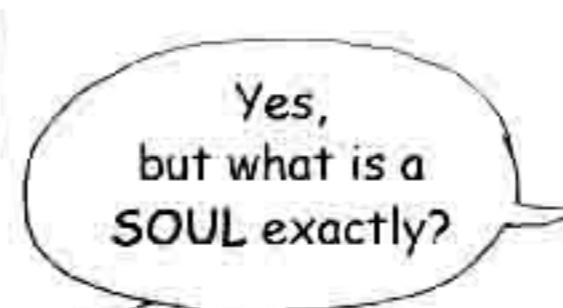


(*) In August 2024, in Bologna, Italy, Cardinal Zuppi read aloud the names of the 36 Jewish children killed by Hamas on October 7, 2023, and the 12,221 Palestinian children killed by the Israeli army. The reading took him 7 hours.

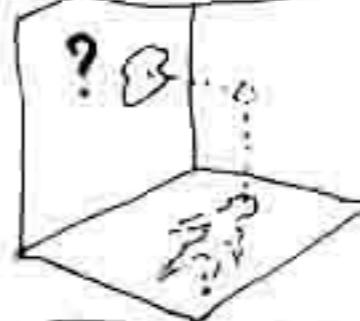
POST MORTEM DESTiNY



There is at least one thing that emerges from this exploration of geometry and mathematics: our thoughts and feelings are not just simple neural connections. We have a **SOUL**, and it persists after our death!

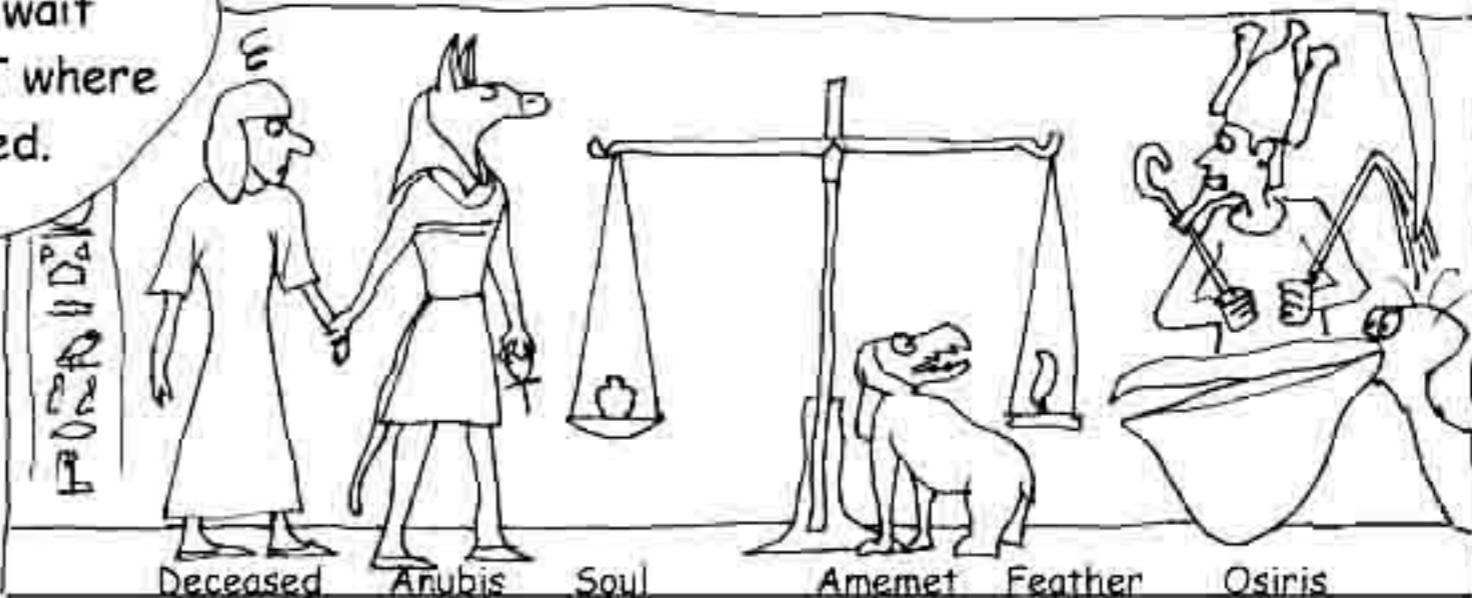


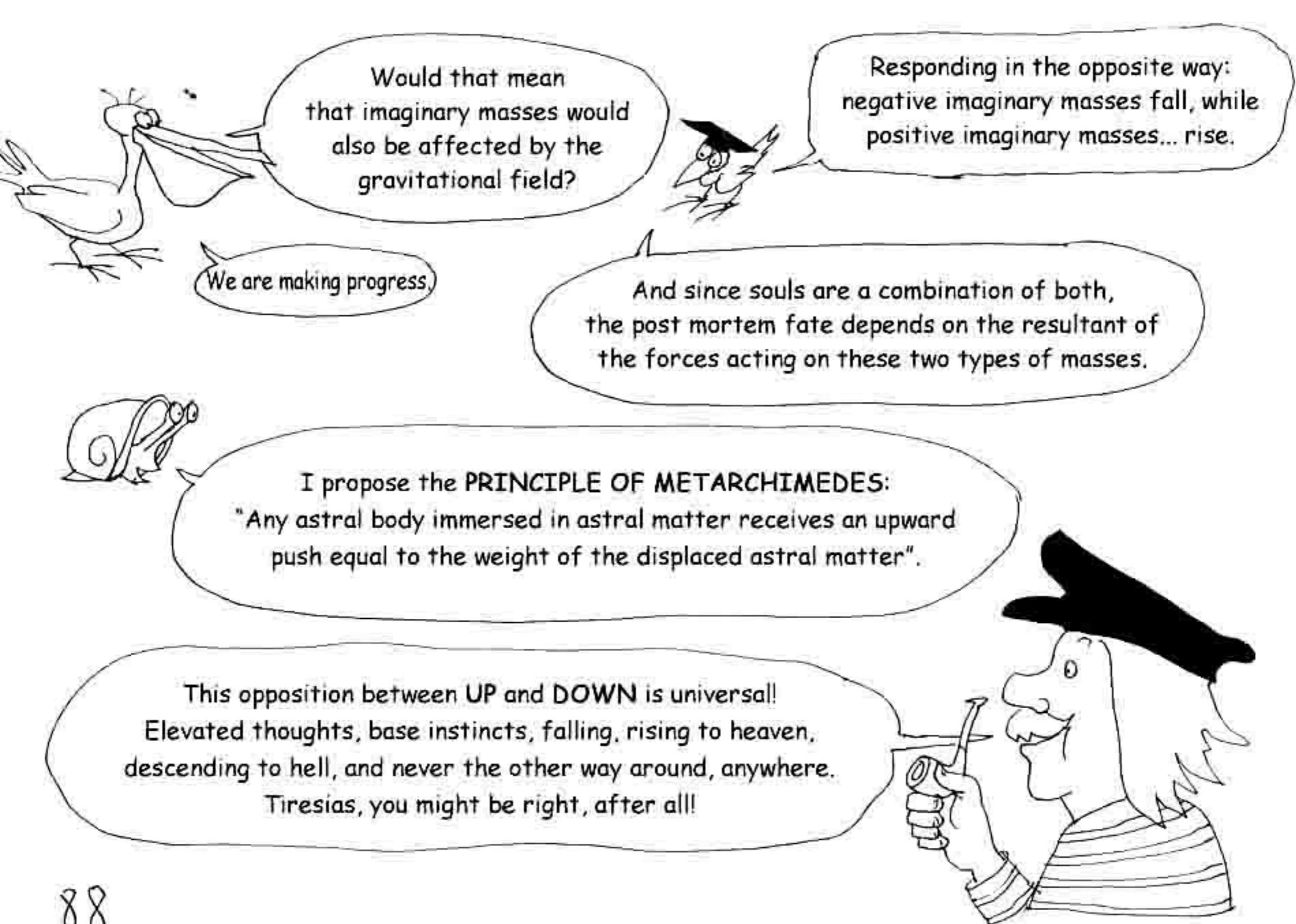
Yes, but what is a **SOUL** exactly?



For **CHRISTIANS**, the soul is supposed to wait for a **FINAL JUDGMENT** where its fate will be decided.

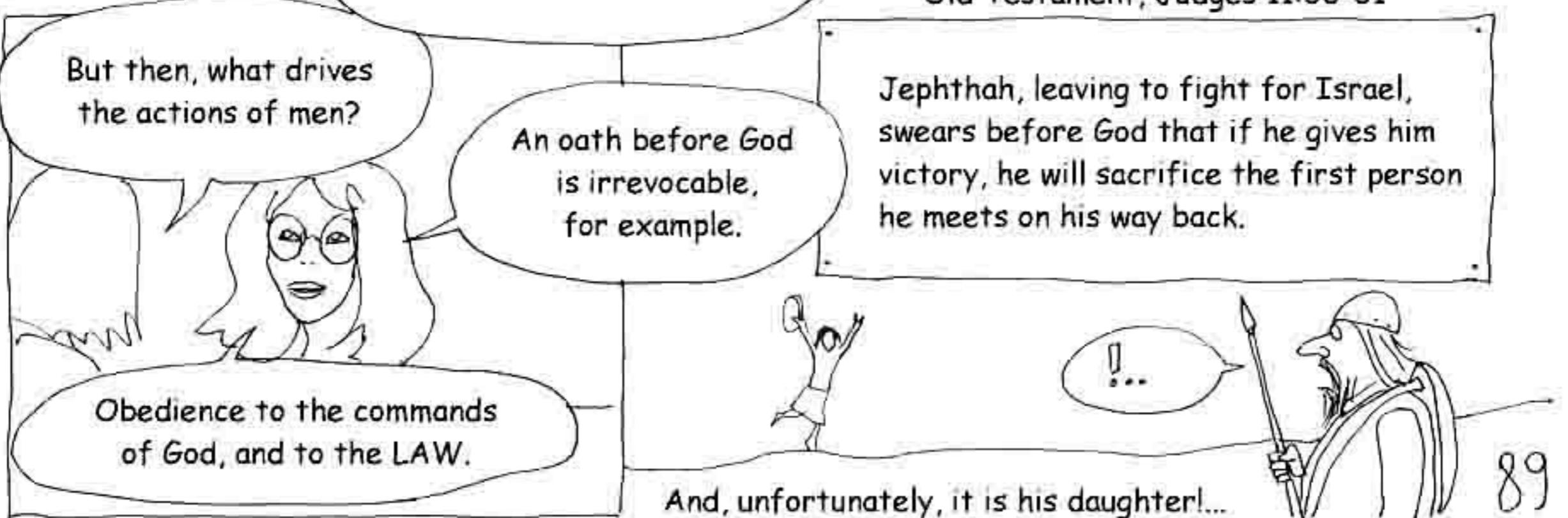
But this is not new. In Ancient Egypt, they practiced the **WEIGHING** of the deceased's **SOUL**.







Old Testament, Judges 11:30-31



(Jephthah could not commit suicide because his perjury would fall on the whole tribe!).

You know, if you delve into these religions of the **BOOK**, you haven't finished discovering some real highlights.

And on the side of those billions of people who operate under reincarnation?

The conquest of the Promised Land is nothing other than a genocide of all the local populations (*).

I have a theory to explain that.

Still according to the principle of Metarchimedes, the rise of the soul depends on the weighted average of the souls from past lives. The next incarnation can then be used to lighten the total load, by adopting a lifestyle to atone for what we would have made others endure, in a negative existence. This corresponds to the idea of **KARMA**.

That's a beautiful idea, Tiresias!

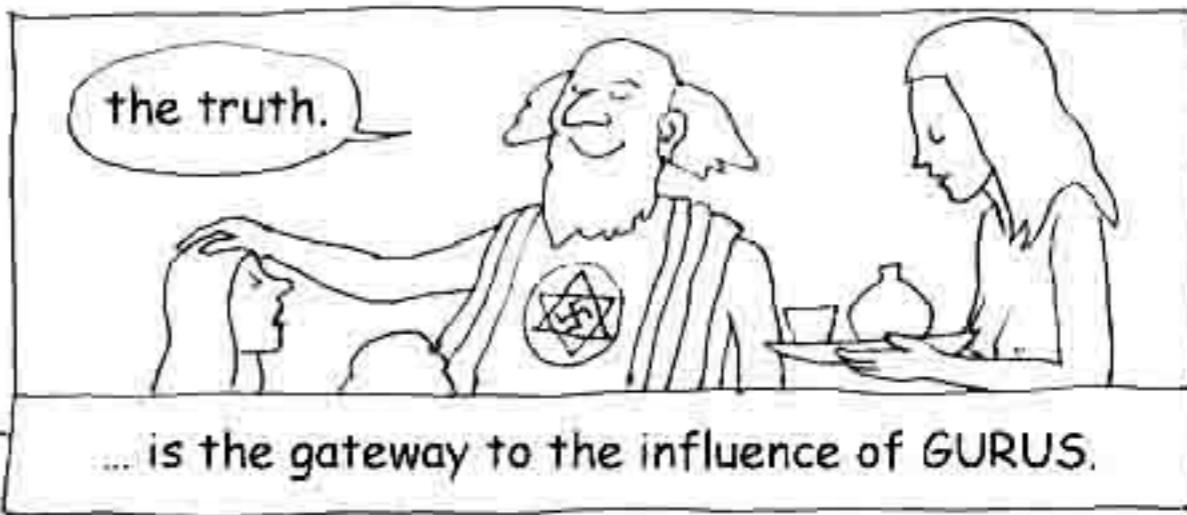


On Earth, one has a post mortem future to which a very large number of individuals adhere, imagining their individual souls as "cherries immersed in cherry syrup", with the ultimate goal that, from reincarnation to reincarnation, the skin of the cherry gradually wears away, to the point of disappearing, resulting in the ANNIHILATION OF THE SELF, a fusion of the individual soul into the collective soul, which individuals strive to approach through MEDITATION, in a state of NON-THOUGHT, reflecting a state where CONSCIOUSNESS detaches from REAL LIFE, relegated to the rank of ILLUSION. Let's also mention TRANCE, ILLUMINATION, and NDE (near-death experiences) states (*).

As in the multiple ways of connecting with the NOOSPHERE, ASCETICISM, while putting life in this world into perspective, encourages FATALISM and...



The Earth is a fantastic ZOO. The infinite variety of beliefs and worldviews constitutes both its exceptional wealth and the source of its problems. Its NOOSPHERE is as turbulent as its BIOSPHERE and its SOCIOSPHERE the seat of fratricidal conflicts arising from this planetary immaturity.



... is the gateway to the influence of GURUS.

(*) There would be much to say about the phenomenon of DREAMS and its multiple facets. But this comic book would then exceed a hundred pages.



But how do collective or individual souls form?

And, just as in this interstellar space there are elements discarded by supernovae (*), the new stars, in a way, perform a form of reincarnation.

In interstellar space, stars form by condensation of elements from the NOOSPHERE, which functions in a similar way.

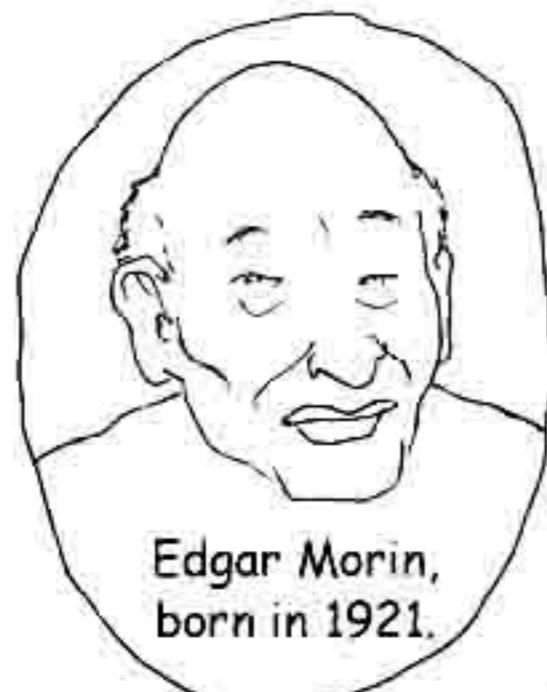


Either it is a preexisting soul that attaches itself to a developing bio-body, or it is a "new soul" that forms from what drifts in the NOOSPHERE, part of a subset related to its ethnicity, with positive and negative elements.



The terrestrial NOOSPHERE is as disorganized and complex as its BIOSPHERE, with its packets of souls, individual and collective, immature, and its species, its sets of thoughts, memories, emotions, and beliefs, which form into functional egregores, to which we give a divine status.

(*) Even stars can die.



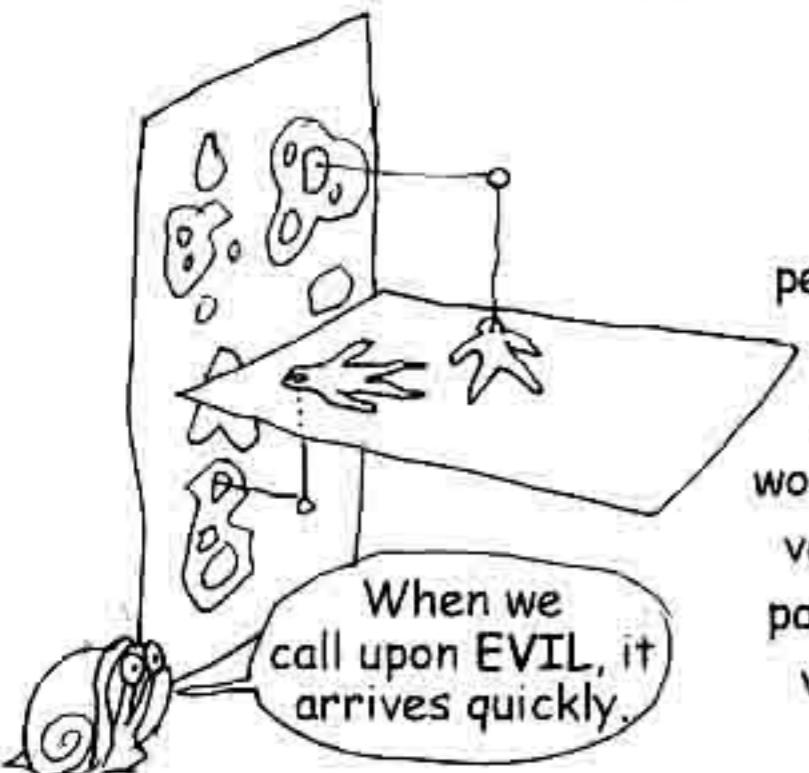
Edgar Morin,
born in 1921.

The philosopher Edgar Morin summarizes the positive and negative tendencies by referring to an eternal struggle between EROS and THANATOS. But he continues to deny that human consciousness persists after death.

You, you are really a Renaissance man.



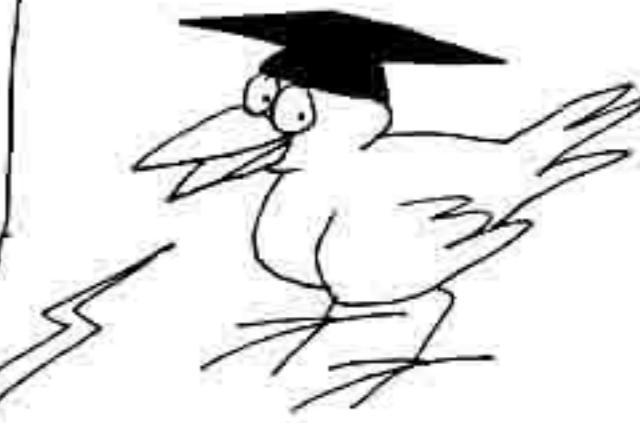
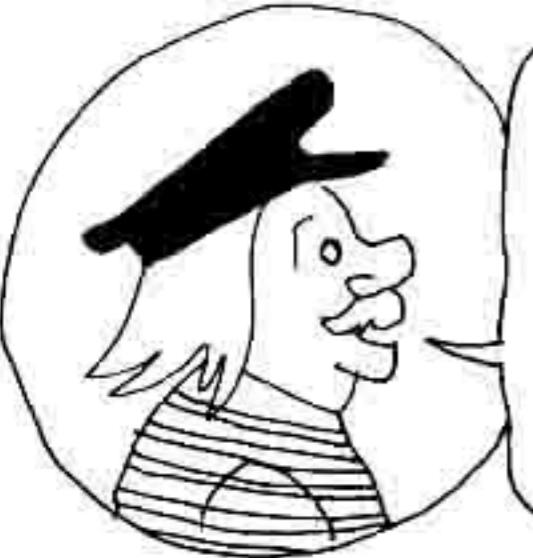
When you'll die, you will find yourself like an idiot, not knowing what to do and saying to yourself: "I should have listened to Jean-Pierre!".



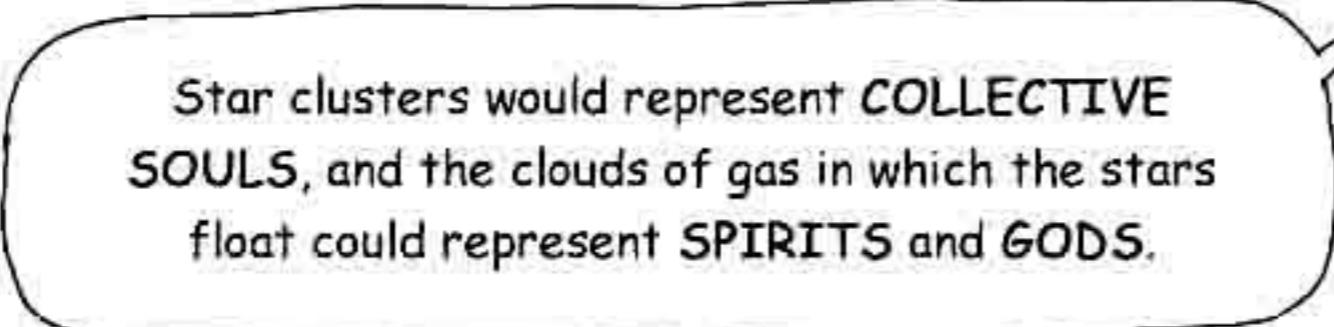
When we call upon EVIL, it arrives quickly.

It happens that very negative thoughts can permeate one or more human beings and that this can contaminate, both in this world and in the NOOSPHERE, vast human groups, with the paradox that, very often, the victims can in turn become tormentors...





In many civilizations, people are inclined to think that the stars in the sky represent the souls of the deceased. This is only an image. But, by analogy, the NOOSPHERE would have a similar structure. Human souls would be aggregates of imaginary mass, combining positive and negative imaginary masses.



Star clusters would represent COLLECTIVE SOULS, and the clouds of gas in which the stars float could represent SPIRITS and GODS.



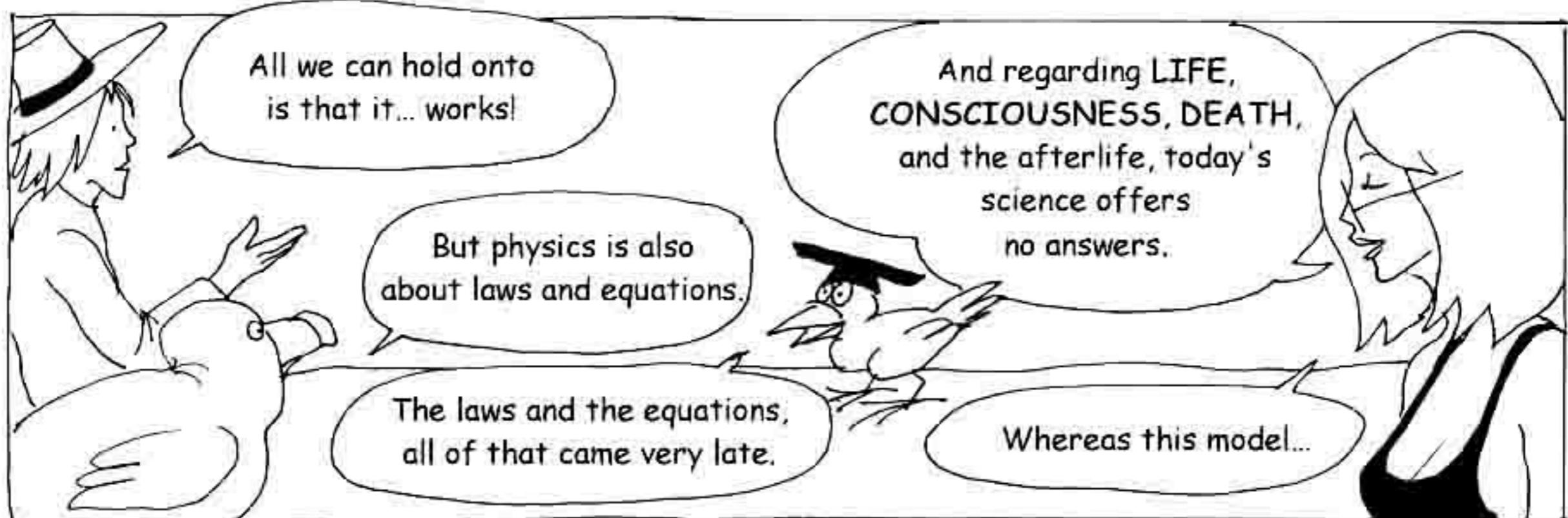
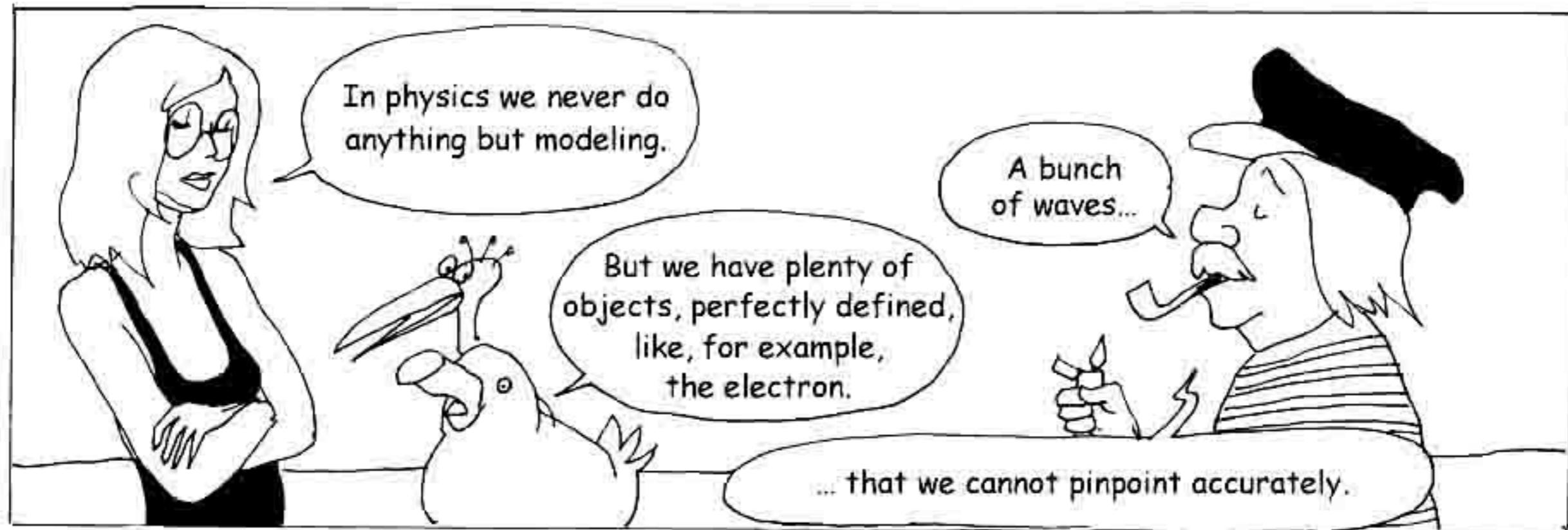
Stars emit increasingly complex atoms which, in turn, become stars again. This idea of recycling and refinement is also found in the NOOSPHERE.

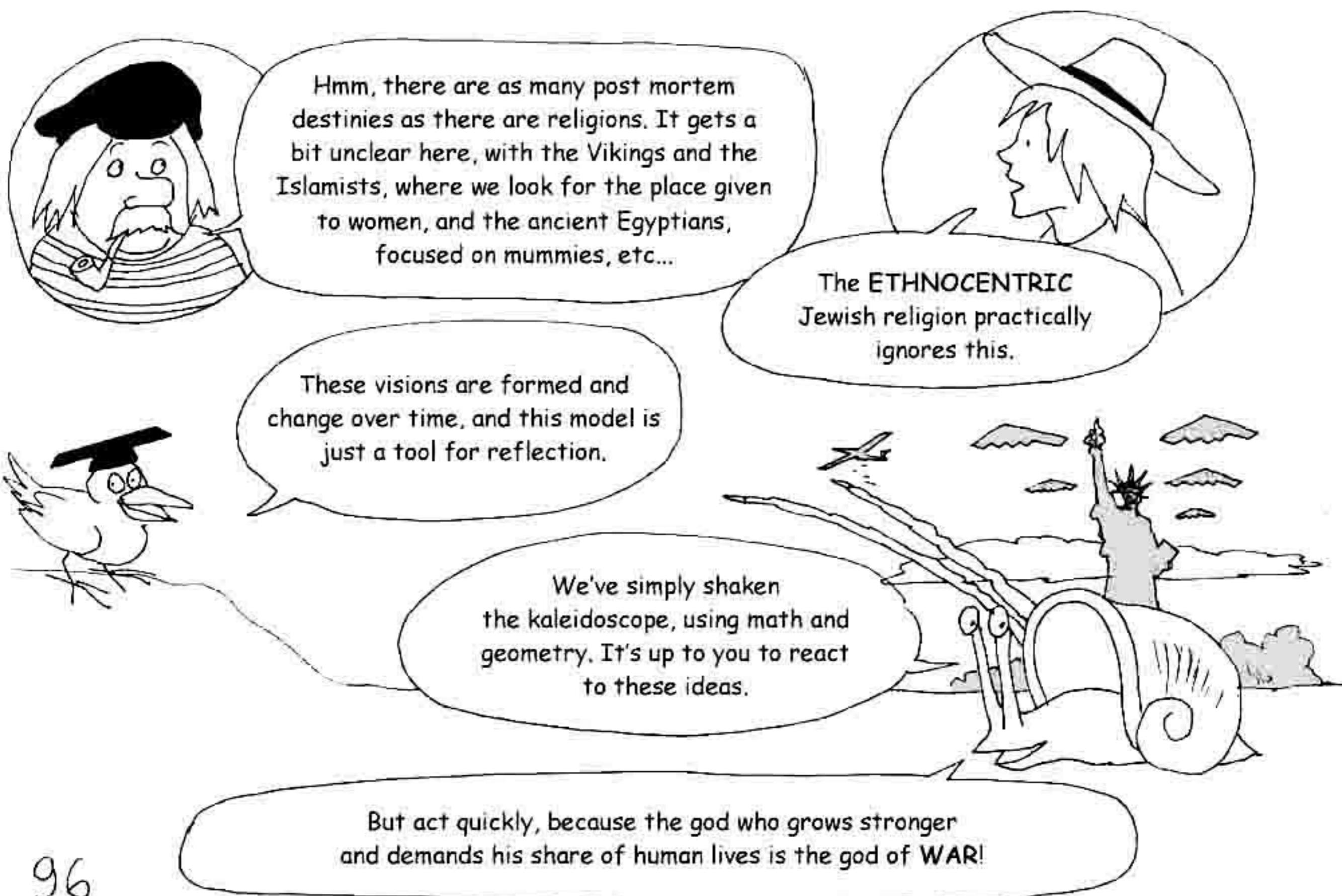


But all of this is no longer SCIENCE!



We are stepping outside the domain of PHYSICS!





EPILOGUE



In this comic, as dense as an English pudding, we addressed the question of interstellar travel, showing how a starship could reverse its mass by concentrating energy at its periphery, and how to use physics to achieve it.

We then digressed into the world of numbers, illustrating that the existence of imaginary numbers suggests the existence of another reality.

Afterward, we ventured into metaphysics, which philosophers likened to a lake where, to navigate it, one had neither boat nor sail.



But ultimately, all of this can be summed up in one sentence:

