

Newton

A week after the experiment of the "black hole" I went back to the farm of Leon, because as always I had nothing better to do. I had all afternoon to kill before heading to dinner to Modica Sorda, to the trattoria of the truck drivers, where the food is good and they serve excellent boiled vegetable soup, called "trio of vegetables". I found him sitting in his usual place, on his stone seat under the carob tree busy writing with a Byro pen on a notebook. Beside him on the seat there were two books, kept open by two large stones.

I took out from my bag a bottle of homemade grappa, extra aged, made with Sicilian grapes of quality from an acquaintance of Salemi and filled two strong cups that I had brought for the occasion. Before asking questions, we toasted and we swallowed down without delay the first shot. I knew Leon might like this grappa and Leon in fact had become cheerful and in the mood to talk. Being curious as usual I asked him if he was working on a new theory.

"No, I'm just rewriting most of my old *inertia* theory, because people did not understand it. "

"What people are you speaking of, the scientific world in general or some scientists in particular?" I asked warily.

"Actually, I'm talking in general. I am amazed by the fact that despite my theory was published by me on Amazon.com, with the book "The Prophet of the Libyan desert" which is now on the elevenmillionth place among the bestsellers, no one has ever

contacted me to discuss it, to refute it or use it in other publications. Okay, I did not use my real name in the book, but I used the pseudonym Max Melli, but no one, so to speak, has said shit to me. "Leon said with a sigh. In response, wanting to encourage him, I poured a second glass of that excellent grappa of Sicilian Muscat and told him: "Here, drink!"

Leon drank down that golden nectar, and clicked his tongue on his dentures, then said: "I'm not saying they would have to nominate me for the Nobel Prize in physics, but at least mention me in some scientific publication! But nothing, nada, zilch, fuckhole! Now I'm rewriting it to make everyone understand that my theory contained the missing ingredient that Newton needed to confirm the existence of the *ether* that he had guessed should exist. If a genius like Newton had known about my theory, he would have discovered the Theory of Relativity before Einstein and perhaps he would have also discovered the Theory of Everything. "

"I do not remember reading anything about your theory of *inertia*. Can you explain it?" I asked, after drinking in turn a second grappa.

"I'm sure you know that Newton had rediscovered the *principle of inertia*, invented by our Galileo, and had embellished it with other details. Galileo had simply said: "*A body maintains its state of rest or uniform movement in a straight line unless a force acts upon it*", relying only on his intuition and Newton had beautified the principle turning it into:

Newton's first law. "*A body not subjected to external forces, or such that the resultant of the external forces acting on it is zero, remains in the state of rest or rectilinear motion.*" As you can see Newton had not added to Galileo's theory any new concept, but then he developed the concept that it takes a force to move its *inertial mass*. The *inertial mass* of the body had been the great discovery of Newton which is an integral part of his:

Newton's second law. "*The resultant of the forces applied on a body is equal in magnitude to the product of the mass of the body for the acceleration: and has the direction and the direction of acceleration.*"

The problem of Newton was that he had never understood why ...why all of this happens! " Leon was silent and stared at me to see if I understood the problem.

"While you... you know why?" I asked, with hope, ready to pour a third glass in case of negative response.

"Sure, it was easy to get there, it was as easy as the *egg of Columbus*, but you had to get there. And I got there!" Leon was not good at hiding his pride, so I helped him with a third glass of grappa that Leon drank, in one breath, then he said, wiping his mouth with his sleeve:" Knowing the two first laws and Newton's third law that says:

Newton's third law. " *When two bodies interact, the force, which the first body exerts on the second is equal and opposite to the force that the second exerts on the first.*"

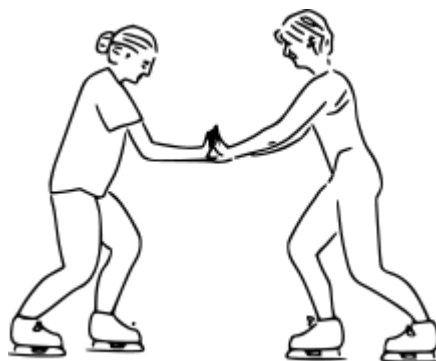
The third law of motion is also known by the original wording of Newton, "*to every action there is always an equal and opposite reaction*", where the term *action* must be understood as a *force*. In mathematical terms the third principle can be summarized as: *the principle of conservation of momentum* because it implies the conservation of momentum and thus the symmetry of the physical laws with respect to spatial transfer. "

Instead of pretending to have understood I said, "Excuse me, but I have not figured out how the three principles are integrated together to explain the *inertia*. Can you give an example? "

Asking Leon to explain a concept of physics was like to invite him to a wedding, so he stood up and began to recite.

"If two skaters are pushing against each other with equal force what happens? "

"They're still on their skates in the same place?" I ventured to respond. "Bravo, you know ... That's the picture ..." And Leon showed me this drawing he had made in his notebook.



"This is an illustration of the third principle of dynamics, in which two skaters push one against the other. The intensity and direction of the two forces is the same, but these have an opposite direction, and balance each other out." Leon explained.

"And if the skaters are three, or more than three, pushing with equal force, they balance out all in one point and then don't move, right?" Leon asked me, raising his voice.

"True, I think it's right!" I stammered intimidated by such enthusiasm.

"And if the skaters are an infinite number, and all push with the same force what happens?" Leon did not wait for my answer and said: "They're *still* in space-time. It was not easy to get there! "I had to drink a grappa shot to take me on a par with Leon, and then poured the fourth, pending the conclusion.

Before drinking Leon concluded: "Newton had realized that space was infinite and it was filled with an invisible fluid which he called "ether ". Now bearing in mind his three principles, he should have understood that any physical point of that space, had to be in balance and had to be stationary in space. Note that in his time, in 1700, the space had not yet become space-time, because that was the invention of Einstein two centuries later. But the concept is the same. "

And I, to encourage him, I said: "And you are the one that got there! Extraordinary, but Einstein had not understood the problem? "

"Even if he had understood, he never said anything about it, but Einstein, although he had arrived to the *principle of equivalence between inertia and gravity*, did not know what was causing the inertia, because he did not believe that the space-time is infinite. "

Leon sat down again on his stone seat and took his fourth shot, while I, to encourage him, drank mine. Now our cups were small, but not zero, so the grappa was beginning to take effect, therefore Leon, with slightly drunken voice and mumbling the words concluded: "According to my theory, space-time is infinite and full of *logons*, atoms of space-time, or geometric points with physical existence ... and the *logons* completely fill the space-time without leaving any gaps ... and every Logon is the perfect center of the space-time, because its distance from the circumference of the space-time is an infinite radius in all directions. So a Logone would say: why the

heck should I move, I'm happy here and I am in balance at this point. And he would not move. And that is the "inertia" ... "

I applauded because I had understood. Who the heck would force the Logon to move, if he was okay right there at the center of the space-time? The bottle was almost empty and I had realized that Leon was a great scientist and definitely deserved the Nobel prize for that great discovery, so I invited Leon to the Trattoria of the truck drivers ... but he declined, with the excuse that I was drunk and said: "Let us grill a couple of sausages on the charcoal, and tonight you stay here with me here ..."

And so it was.