ON THE FALLACY OF "GRAVITATIONAL WAVES"

By Pierre Beaudry, 7/14/2016

INTRODUCTION

Are so-called "gravitational waves" a confirmation of Albert Einstein's General Theory of Relativity or are they simply an attempt to prove the existence of black holes? Did Einstein ever consider the universe to be an immense lake in which the interferometric ripples of colliding black holes could become the proof of the curvature of gravity in physical space-time? Since I was asked by several readers to look into this matter, I will attempt to answer these two questions as briefly as possible from the vantage point of epistemology and give a sense of how to solve this type of problem.

Since February of 2016, the scientific community has been inundated with the news that the "proof" of the existence of gravitational waves had been successfully made by a group of scientists from the <u>Laser Interferometer</u> <u>Gravitational-Wave Observatory</u> (<u>LIGO</u>), and that the evidence which was put forward to demonstrate the existence of such waves was that they had been caused by the colliding of two black holes somewhere in the universe. The event was also reported to have been a demonstration of Einstein's General Theory of Relativity.

The point to be made, here, is that this was not a scientific proof of Einstein's experiment, because Albert Einstein's 1915 discovery of General Relativity was not the result of a simple sense perception experiment, but the

product of a crucial epistemological experiment demonstrating the pedagogical function of the discovery of principle known as Plato's Cave.

TRUTH VERSUS SENSE PERCEPTION

The collision of so-called "black holes," on the other hand, should be considered merely as a hypothesis projected on the dimly lit wall of Plato's Cave for the purpose of convincing a captive audience that truth comes from a sensational perception and without inquiring why this is the truth.

The issue, here, is not whether Einstein was right or wrong in hypothesizing the curvature of light in physical-space-time (See my report on THE PLATONIC SIGNIFICANCE OF EINSTEIN'S THEORY OF GENERAL RELATIVITY), but whether the reality of the curvature of physical space-time already proven by Einstein by means of a solar eclipse can be observed in the manner proposed by the LIGO group. The answer to that latter question is no, because the experiment of LIGO is a fallacy of composition.

THE FALLACY OF THE LIGO EXPERIMENT

This <u>LIGO</u> experiment poses an interesting problem of epistemology, which I have been asked to look into briefly, because it poses a very serious question to a critical mind: How can a scientific experiment be proven by sense perception evidence or by the lack of sense perception evidence? This question raises the fundamental difference between Plato and Aristotle, and the problem is that what the <u>LIGO</u> experiment demonstrates is that it is the typical limitation of an Aristotleian experiment based on sense perception as opposed to reason. As Aristotle put it in his critique of Plato: "What is certain is that we must start from what is known to us. [...] And the principle, in this matter, is the fact. If it appears

to us with sufficient evidence, we will have no need to know why." (Aristotle, *Nicomachean Ethics*, Book I, Chapter IV, 6-7.)

On the other hand, the real epistemological experiment to be made, here, is to internalize and project Einstein's discovery of General Relativity on the wall of our own imagination, and ask ourselves: "How can gravity be understood as the distorted result of the least action curvature of physical space-time in the same way that projections are distorted on the dimly lit wall of our minds?"

The problem that such a crucial experiment poses is: "What are the required conditions for the detection of a true astronomical experiment; and how can you tell the difference between a strong sense perception impression and the truth? That's the challenge being posed by the recent discovery of the <u>Laser Interferometer Gravitational-Wave Observatory</u> (LIGO).

The issue, here, is not whether gravitational waves and black holes are real or not. The issue is whether the observation process employed by the <u>LIGO</u> experiment is "scientific" in the Plato, Kepler, Pasteur, and Einstein meaning of the term. I remind the reader that during his inaugural speech at the Académie Française in 1882, Louis Pasteur had emphasized that a scientific experiment does not have the same meaning in the street as it does in the laboratory. Pasteur said:

"In the first case, experimentation is but a simple observation of things which concludes by induction, more or less legitimately, from what has been to what can become. The true experimental method goes all the way to the irrefutable proof." (Louis Pasteur, *Inaugural Speech to the Académie Française*, 1882.)

So, the question is how do you determine an irrefutable proof? What is a truthful scientific experiment? In a recent video: <u>LIGO detects gravitational waves</u>, <u>LIGO</u>'s Laboratory Executive Director from Caltech, David Reitze, said that "what you see is two black holes colliding with each other." But, what he doesn't say is that what you are looking at is a mathematical construct not a reality in the heavens. In other words, what he is saying, epistemologically speaking, is that *he has projected two mathematical black holes on his computer screen and*

you have to believe that these mathematical objects correspond to two real objects in physical space-time.

His job, therefore, was to get you to believe that the "chirp" that was recorded by LIGO was the distant echo of two colliding black holes in the real world. How do you know that this is the effect of the collision of so-called "binary black holes" and not some other noise? You don't really know. *All you know is that a set of mathematical equations were constructed to give you the effect you were looking for*. My question, here, is: Is this science? And the only way I know how to answer that question is to project this experiment on the dimly lit wall of Plato's Cave and discover if the shadows of the matter correspond to the truth or not. If you follow Einstein, Pasteur, Kepler, and Plato, the conclusion you will inevitably come to is that it is the inference from your mind which gives rise to the truth of the experiment, not the actual calculations of the mathematics or the effect of sense perception, no matter how strong that effect may be.

However, as I said in my report on Einstein, in order to free the mind of its shackles, the truth of the irrefutable proof requires the correction of the error of sense certainty, which the critical mind needs to make from the standpoint of reason in a three step process: 1) by recognizing that the perceived shadows of the discovery were going to be falsely represented, 2) by shattering the mathematical chains that have control over science, and 3) by discovering that the true principle of curvature of space-time needs to be investigated properly as a characteristic of the mind and not simply projected against your sense perception apparatus.

If you let mathematics rule physics like money rules the economy, the scientific community will self-destruct within a more or less short period of time just like the current banking system will. Today, science has become like the banking system; it is very fragile in all of its parts, and if one big player fails and goes under by way of an obvious fallacy of composition, it is not a benefit for the others; it is a danger for the whole system. That is the only way to discover if the LIGO report on so-called "gravitational waves" is a complete fallacy of composition.