

## On Prof. Dr. Werner Frank's Recent Book Reviews: Unzicker and Haumann

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### Abstract

This short article dissects false remarks made by Professor Dr. Werner Frank in his reviews of the books by Alexander Unzicker and Raphael Haumann. The books by Unzicker and Haumann rightly criticise the methods and theories of contemporary physics. Although Frank admits that physics is now in a state of intellectual decrepitude, he nonetheless commits the very same offences that he acknowledges currently pervades physics. Black hole theory is particularly refuted herein, very simply, without any recourse to mathematics.

In pages S. 242 to S. 245 of *Zeitensprünge Interdisziplinäres Bulletin*, April 2013, Professor Doctor Werner Frank briefly reviewed two books, (1) *Auf dem Holzweg durchs Universum - Warum sich die Physik verlaufen hat*, by Alexander Unzicker, (2) *Die Physik des Nichts. Warum Urknall, Relativität und Quantenmechanik gescheitert sind*, by Raphael Haumann. Frank has made a number of serious errors and omissions that require correction, lest readers of his reviews become unduly influenced by his false assertions. I will address Frank's comments in reverse order to his book reviews and therefore begin with his appraisal of the book by Haumann.

I first remark that Haumann rightly draws attention to the fact that definitions used by physicists are very often too vague to connote any real meaning and that this has led to confusion and contradiction, rendering theories such as that for the black hole, big bang cosmology, General Relativity, quantum mechanics, and the Standard Model of particle physics unsustainable. The theme of Haumann's book is contained in the quotation he adduces on page 22 of his book, "*Language is the principal tool with which we communicate; but when words are used carelessly or mistakenly, what was intended to advance mutual understanding may in fact hinder it; our instrument becomes our burden.*" Frank has failed to grasp this message and rails against Haumann's thesis in a rather unscientific manner, committing various errors that Haumann actually refers to in his book.

For example, let us consider Frank's comments on the 'mass-point'. He remarks that every physicist knows that it does not exist, that it cannot exist, and considers the Earth orbiting the Sun where the Earth and Sun are treated mathematically as mass-points because the distributions of the masses of the Earth and the Sun are not relevant to the problem. Frank fails to clarify that the mass-point is in fact what is called the 'centre of mass' of an object. The centre of mass is of course a fiction; a figment of the imagination, a mathematical artifice. One can buy a bag full of marbles but not a bag full of centres of masses of marbles. Mass-points are not in fact obtained by shrinking or compressing objects into a 0-dimensional point. They are obtained by flight of imagination, for mathematical convenience. After all, a point is a mathematical entity, not a physical entity, and by definition it has no extension, but a

mass or object is a physical entity, not a mathematical entity, and thereby has extension by its very definition.

Frank's assertion that all physicists know that a mass-point does not exist is patently false. The singularity of the alleged non-rotating black hole is a mass-point, and oftentimes it is claimed that the big bang singularity is a mass-point. Physicists claim that these mass-points are real physical objects and possess various 'infinite' properties. According to Hawking (2002) "*The work that Roger Penrose and I did between 1965 and 1970 showed that, according to general relativity, there must be a singularity of infinite density, within the black hole.*" According to Dodson and Poston (1981), "*Once a body of matter, of any mass  $m$ , lies inside its Schwarzschild radius  $2m$  it undergoes gravitational collapse . . . and the singularity becomes physical, not a limiting fiction.*" Carroll and Ostlie (1996) say, "*A nonrotating black hole has a particularly simple structure. At the center is the singularity, a point of zero volume and infinite density where all of the black hole's mass is located. Spacetime is infinitely curved at the singularity. . . . The black hole's singularity is a real physical entity. It is not a mathematical artifact . . .*" According to Hawking (1988), "*At the big bang itself, the universe is thought to have had zero size, and to have been infinitely hot.*" According to Misner, Thorne and Wheeler (1970), "*One crucial assumption underlies the standard hot big-bang model: that the universe 'began' in a state of rapid expansion from a very nearly homogeneous, isotropic condition of infinite (or near infinite) density and pressure.*" Now I ask my dear reader, how close to infinite must one get to be "*near infinite*"?

It is thus quite false that all physicists know that the mass-point is a fiction. A great many of them assert that it is a real object. NASA scientists have claimed that they have found 2.5 million black holes with the WISE Survey; that's 2.5 million infinitely dense singularities, although they fail to specify the types of black holes they allege to have found, so these singularities might be mass-points or massive circumferences of circles, according to whether these black holes are not rotating or are rotating, respectively. In any event points and circumferences are not physical objects – they are mathematical entities. Saying that mass-points are real and that massive circumferences of circles are real does not impart reality, despite what the physicists claim. Many a physicist also confuses infinity with number and also with mass, as the foregoing quotations attest. Proponents of the black hole even divide by zero and maintain that the result is infinity (e.g. Dirac, 1996).

Contrary to what Frank implies, it is also false that the definitions made by the physicists are satisfactory. The physicists do indeed make inadequate definitions, confound their definitions, and blend them to form nonsensical hybrids by which they then construct elaborate theories that more often than not lead to contradictions rendering them invalid, which they either do not recognise or try to evade by yet more definitions, as the case may be. The wave-particle duality is a stark case in point. Frank however seemingly urges his readers to sheepishly accept these nonsensical definitions and associated theories without thought or question. Haumann's objections to what the physicists have conjured are sound. He proposes definitions in an attempt to correct the fanciful indulgences of the physicists which have led physics wildly astray, detaching it completely from the real world, to a wandering instead in a land of pure fantasy. As Heaviside (1893) quipped, "*It was once told as a good joke upon a*

*mathematician that the poor man went mad and mistook his symbols for realities; as M for the moon and S for the sun.”*

Let us now consider Frank’s review of Unzicker’s book. In that review we find the following;

*“Zahreliche Forscher, zuerst der englische Naturphilosoph John Michell im Jahre 1784, haben bemerkt dass, bei einem besonders schweren oder komprimierten Himmelskörper diese Fluchtgeschwindigkeit über der des Lichtes liegen könnte und dieses dort gefangen wäre [U. 132],*

*das Grundkonzept des ‘Schwarzen Loches’ erst 1967 von John Wheeler geprägt.”*

Haumann rightly objects to black hole theory, a bastion of contemporary authoritarian astrophysics, with its mass-points. Frank does not mention this in his review of Haumann’s book. It is very easily proven that the definitions of the black hole and the big bang contradict one another and so they are mutually exclusive. All alleged black hole solutions to Einstein’s field equations pertain to a universe that is spatially infinite, is eternal, contains only one mass, is not expanding, and is asymptotically flat or asymptotically not flat. But the alleged big bang models pertain to a universe that is spatially finite (one case) or spatially infinite (two different cases), is of finite age, contains radiation and many masses (including multiple black holes, some of which are primordial), is expanding, and is not asymptotically anything (Crothers 2013). Thus black hole theory and the big bang contradict one another. It is therefore not possible for a black hole to be present in a big bang universe or even in another black hole universe, and likewise it is not possible for a big bang universe to be present in a black hole universe or in another big bang universe. Nonetheless the physicists superpose black hole and big bang universes notwithstanding that they are incompatible by their very definitions, and that the Principle of Superposition does not hold in General Relativity. Much of modern physics is simply manufactured in this way and so it bears no relation to the actual Universe.

The black hole is alleged to have an escape velocity and not to have an escape velocity at one and the same time. According to the Dictionary of Geophysics, Astrophysics and Astronomy (2001), a black hole is “*A region of spacetime from which the escape velocity exceeds the velocity of light.*” In the Collins Encyclopædia of the Universe (2001) it is asserted that a black hole is “*A massive object so dense that no light or any other radiation can escape from it; its escape velocity exceeds the speed of light.*” However, according to Chandrasekhar (1972), “*The problem we now consider is that of the gravitational collapse of a body to a volume so small that a trapped surface forms around it; as we have stated, from such a surface no light can emerge.*” And Hawking (2002) says, “*I had already discussed with Roger Penrose the idea of defining a black hole as a set of events from which it is not possible to escape to a large distance. It means that the boundary of the black hole, the event horizon, is formed by rays of light that just fail to get away from the black hole. Instead, they stay forever hovering on the edge of the black hole.*”

Thus the notion of black hole escape velocity is entirely meaningless; nothing but a play on the words “escape velocity” (McVittie 1978). The astrophysical scientists abuse the definition of escape velocity.

The theoretical Michell-Laplace dark body, referred to by Frank, is not a black hole because it does not share the defining features of the alleged black hole. It possesses an escape velocity, but the black hole has no escape velocity; masses and light can leave the Michell-Laplace dark body, but nothing can leave the black hole; it does not require irresistible gravitational collapse, whereas the black hole does; it has no infinitely dense singularity, but the black hole does; it has no event horizon, but the black hole does; there is always a class of observers that can see the Michell-Laplace dark body, but there is no class of observers that can see the black hole; the Michell-Laplace dark body persists in a space which can contain other Michell-Laplace dark bodies and other matter and they can interact with one another and other matter, but the spacetime of all types of alleged black hole pertains to a universe that contains only one mass and so cannot interact with any other masses; the space of the Michell-Laplace dark body is 3-dimensional and Euclidean, but the black hole is in a 4-dimensional non-Euclidean spacetime; the space of the Michell-Laplace dark body is not asymptotically flat or asymptotically curved whereas the spacetime of the black hole is asymptotically flat or asymptotically curved. Therefore, the Michell-Laplace dark body does not possess the characteristics of the black hole and so it is not a black hole.

It is again quite evident that the definitions of the physicists are vague, contradictory, hybridised, and thoroughly meaningless in many instances. Haumann's insistence upon proper definitions is well founded, despite Frank's objections.

Although Frank embraces Unzicker's advice to his readers to think for themselves instead of blindly digesting the words of authorities, he disparages Haumann for doing just that, and ferociously objects to Haumann questioning the authority of the likes of Einstein, Planck and Heisenberg. However, "*Anyone who conducts an argument by appealing to Authority is not using his intelligence, he is just using his memory.*" (Leonardo da Vinci, 1452-1519).

By invoking the authority of Einstein, Planck and Heisenberg, in his rebuke of Haumann, Frank does precisely what must not be done if science is to progress. Nothing in science is sacrosanct, nothing is absolute, and all is open to question and further investigation at any time at any place. "*There must be no barriers to freedom of inquiry. There is no place for dogma in science. The scientist is free, and must be free to ask any question, to doubt any assertion, to seek for any evidence, to correct any errors.*" (J. Robert Oppenheimer, 1949)

## Dedication

I dedicate this paper to my beloved late brother

**Paul Raymond Crothers**

12<sup>TH</sup> MAY 1968 – 25<sup>TH</sup> DECEMBER 2008

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