The Temperature Scale and the Universal Constant for Particle Mass

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In this essay, we shall illustrate how the universal constant for particle mass (2.3055c) relates to the Earth/matriX thermodynamic temperature scales. First, let us recall how the 2.3055c difference factor is obtained from the relationship between the neutron mass and the proton mass constants.

Neutron mass constant minus proton mass constant yields Difference:
1.6749286 x 10 $^{-27}$ kg *minus* 1.6726231 x 10^{-27} kg = 2.3055 x 10^{-30} kg

The *difference* is a fractal expression of **2.3055c** (the c simply meaning a number count). Let us view these numbers without the confusing scientific notation, simply as fractal numerical expressions:

1.6749286 : 1.6726231 : 2.3055

The next immediate computation is to divide the difference (**2.3055**) into each of the corresponding constant values, i.e., the values assigned to the neutron and proton masses. The reasoning is again simple, and relates back to a procedure evident in the ancient reckoning systems. The constants of the proton mass and of the neutron mass produce a **difference** that is necessarily significant to the specified quanta of their own numerical expressions. The difference between constants is even more meaningful in that they produce the ratios of the constants. Nonetheless, the data regarding the physical and chemical constants revolve mainly around the constant factors and their ratios.

By examining the differences between constants, we are asking how many quantities of the *difference* (2.3055) make up each of the main terms of the equation---ergo, how many 2.3055s are in the proton mass and how many 2.3055s are in the neutron mass.

Neutron mass divided by the difference 2.3055c:
1.6749286 x 10 $^{-27}$ kg *divided by* 2.3055 x 10^{-30} kg = 726.49256126

Proton mass divided by the difference 2.3055c:
1.6726231 x 10 $^{-27}$ kg *divided by* 2.3055 x 10^{-30} kg = 725.49256126

An additional procedure is to multiply either the universal neutron mass constant or the universal proton mass constant by a given number in order to obtain that same number as the difference between both constants. In this manner the universal constants appear in ratios with multiples expressed in whole numbers. Consider some selected examples of constants, their multiples and differences.

(***5*** *x .72649256126 and .72549156126*)
363**2**.4628063 minus 362**7**.4628063 = **5.0**

(*7 x ibid*)
50**85**.44792882 minus 50**78**.44792882 = **7.0**

(*273.15 x ibid*)
198**441.44**3108 - 198**168.29**3108 = **273.15**

(*373.15 x ibid*)
27**1090.69**9234 - 27**0717.54**9234 = **373.15**

(*693 x ibid*)
50**3459**.344953 - 50**2766**.344953 = **693**

(*1.36656 x ibid*)
99**2.79567**4515 - 99**1.42911**4515 = **1.36656**

(*195.9552 x ibid*)
142**359.9951**40215552 - 142**164.0399**40215552 = **195.9552**

(*23055 x ibid*)
167**49285**.9998493 - 167**26230**.9998493 = **23055**

(*23055 x 726.49256126**653** and 725.49256126**653***)
167**49285**.99999984915 - 1.67**26230**.99999984915 = **23055**
[The extra decimal places come from the computation 11356 / 23055, the 11356c number being the additional amount over and above the 726c and 725c figures, that corresponds to the mantissa .49256126 in the original universal values. So, whether one adds character values or mantissa values, the differences revolve around the middle digits of the decimal point given the unit 1.0 difference from the beginning. Consider:]

(*23055.**7605** x 726.49256126653 and 725.49256126653*)
167**49838.4975**92692346065 - 167**26782.7370**92692346065= **23055.7605**

(***1**23055.7605 x 726.49256126653 and 725.49256126653*)
89**399094.6242**45692346065 - 89**276038.8637**45692346065 = **123055.7605**

The ease by which the difference between the two constant values may be obtained comes from comparing the inner workings of the values of each, even without the need of a calculator. This means that if an error is made in keying in such long and complicated numbers, then the work may be corrected by simply doing the subtractions mentally. One must concentrate on the digits that are distinct in both terms and make the computations mentally ---an achievable feat since all numbers of these sets are based on the unit one (1.0) from the start.

Furthermore, t*he decimal place may float thereby creating fractal expressions of the same value.* The complexity of the numbers is only apparent, as simple subtraction is required for generating the differences.

Neutrons mass	*Protons mass*	*Difference*
.89**3990946242**45692346065	- **.**89**276038.8637**45692346065	= **.**00**1230557605**
89**.3990946242**45692346065	- 89**.2760388637**45692346065	= **.1230557605**
89**399094.6242**45692346065	- 89**276038.8637**45692346065	= **123055.7605**
89**3990946242.**45692346065	- 89**2760388637.**45692346065	= **1230557605.**

and so on.

The significance of the Earth/matriX factor **2.3055c** for computing the Universal Constants of Neutron Mass (**726.49256126**) and Proton Mass (**725.49256126**), in terms of differences separated by specific number series based on the unit one (1.0), concerns the relationship of particle mass to the thermodynamic temperature scale. Undoubtedly, these Universal Constants may be employed for computations, and then converted by the 2.3055c factor back into the values of *1.6749286* and *1.6726231* respectively for neutron and proton masses. Or, one may wish to create an entirely distinct system of computation for weights and measures, which shall require more extensive commentary and construction.

In previous extracts, we have illustrated the fact that the values relating to the constants for neutron mass and proton mass are near exact reciprocals and multiples of the numbers relating to the Kelvin temperature scale (373.15 BPW; and, 273.15 FPW).

For example, the neutron mass constant is nearly an exact reciprocal of the temperature scale in kelvin.

1 / **1.6749286** =	.59704037533	
	.29852018766	
	.14926009383	
	.07463004691	
	.0**37315**02345	*[373.15 boiling point of water]*

The universal constants for neutron mass and proton mass, mediated by the 2.3055c, relate in a similar manner to the corresponding values (1.366 and .366) for the Earth/matriX temperature scales, as we shall now illustrate. Instead of deriving from the reciprocal of the universal constants, the relational numbers of the Earth/matriX temperature scales come from dividing the neutron and proton masses by the difference 2.3055c factor.

Neutron mass divided by universal constant derives Earth/matriX temperature scale

.72649256126 / 2.3055 = .31511280037

.31511280037 / 2.3055 = **.13667872494** *[Earth/matriX scale I: **1.366 BPW**]*

Proton mass divided by universal constant derives Earth/matriX temperature scale

.72549256126 / 2.3055 = .31467905498

.31467905498 / 2.3055 = **.13649058988**

Further consider:

1.3667872494 + 1.364905498 = **2.7316931482** *[triple point of water 273.16 k]*

2.7316931482 / 2 = 1.3658465741
1 / 1.3658465741 = **.73214665465** *[Earth/matriX scale II: **.732 FPW**]*

Now, let us consider the differences of these values in relationship to the 1.366085811 figure that we have been employing ever since 1995 on the Earth/matriX thermodynamic temperature scale: 373.16 / 2.7316 = 1.366085811. Abbreviated analysis:

1.36678725 - 1.366085811 = .000701439

.000701439 / 2.3055 = .000304246

.13649058988 - 1.366085811 = .001179912

.001179912 / 2.3055 = .000511781 **5117 - 3042 = 2075 - 2305.5 = 230.5**

Even more tell-tale is the direct relationship between the universal constant of difference, 2.3055c, and the boiling point of water ---in relation to the proportion of the square root of three that we have been recognizing in the Earth/matriX series of extracts.

373.15 / 2.3055c = 161.8520928

161.8520928 x 2 = 323.70441856

373.15 x 1.732050808 = 646.3147588 *[1.732050808 is the square root of three]*

646.3147588 / 2 = 323.1573794

The Earth/matriX thermodynamic temperature scales illustrate the significance of the square root of three to the proportional points such as the boiling (373.15) and freezing point (273.15) of water, as well as the triple of point of water (273.16). The previous computations are a selected few of the relationships between the universal constants of particle mass, the difference between these constants, the square root of three, and the distinct Earth/matriX temperature scales along with the Kelvin and centigrade scales. More relationships shall be analyzed in future extracts and essays in this series. Consult our web-site (www.theschemata.com) for further analyses.

The direct relationship between the different temperature scales and the values of the physical constants would suggest their being interconnected within spacetime/motion. In our view, it is not only logical, but necessary to comprehend how the spacetime/events are interconnected and derive from and into relational numbers. All spacetime/motion events exist in relation to one another, it would only be logical to assume that all their numerical values are similarly derivative thereof.