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1. Introduction

Mathematics uses = as the gateway to describing a material order. It allows mathematical equations to make fundamentally true statements of how the universe is ordered. Material objects obey external relationships that cause the universe to develop in predictable ways.

We explore a dynamic equality that does not count with what is visible but joins together the capacities of the unseen coming together into a just order. The colour equality “c=” we introduce is an inherent freedom of meaning that guides action into identity. Where = in a statement like $2+2=4$ is a closed statement $2+2$ “c=” 4 shows a partial aspect that has to be joined to other perspectives to illumine the depth of many-sided reality. We show the origin of c= in Maxwell’s equations, its development in Einstein’s equations and its fulfilment in the integration of meaning and structure.

2. Maxwell’s Equations

Maxwell made the mathematical step of writing down in four grand statements the equations of the relationship of electric and magnetic fields, integrated into electromagnetism. Electromagnetism radically transformed our understanding of the world. Moving charges transmitted electromagnetic waves that would propagate massless at the speed of light, undetectable until they were received by something physical resonating to the signal. Artificially produced waves introduced x-rays, radio-waves, light-speed telemetry signals that have transformed our world. There are however **two** solutions to Maxwell’s equations.

One solution describes an ordering relationship developing in time, known as a *retarded wave*, with which we are all familiar from our mobile phones etc. The wave in this solution has a velocity $t-c$, in other words it is *retarded* with a speed c , of light. This solution details the composition of light as electrical and magnetic fields. Colours represent different wavelengths of the phenomena of light. *Retarded waves* we can picture as like outgoing circles distributing over the surface at finite speed resulting from throwing a stone into a pond. The = sign of Maxwell’s equation established an *external relationship* that brought into connection many phenomena as electricity, magnetism, colour, light, telemetry signals into a defined lawfulness of behaviour.

There is another solution to Maxwell's equation, which Einstein, Feynman and Wheeler recognised and explored (Franses, 82-93), where the velocity of the wave, $c+t$, is *advanced* ahead of time. An *advanced wave* solution connects many expressions of possibility which work together towards a particular act of illumination. The wave now travels in *advance* of time to the moment that light translates an order of illumination as foundation to time. The identity of light establishes an *internal relationship* to all the preparatory freedoms. *Advanced waves* are as the incoming concentric circles anticipating in uniform rhythm the source of a stone lifting out of a pond at their centre.

The $=$ of the equation for the *advanced solution* does not denote an absolute order that is identified. The $=$ refers to an *internal relationship*, where different expressions are found to belong to the illumination of a single particular action that unites all the component aspects. The $=$ is an act of illumination that bridges a culminating order to the anticipatory behaviours of time. In this solution the colours are partial rhythms $= = = = =$ that hold together freedoms in anticipatory statements between darkness and light. We denote by " $c=$ " the set of partial equivalences that sum together into an act of illumination. " $c=$ " or *can equals* or *colour equals* depicts an *internal relationship* uniting the phenomena within a particular act. In *internal relationship* we are talking about a *local order* of connection true with respect to a single unifying action of illumination.

3. Einstein's Equations

To determine the relation of $c=$ (the partial equalities of colour) to $=$, we can follow the lead of twentieth century physics. Einstein in *special relativity* asks us to consider the case where space and time are only locally true, dependent on the relation to light. One person travelling at the speed of light from the sun, will experience no time or space separation, while another watching stationary from the earth can record the eight minutes the journey takes, also through the aging process of his organic clock. We thus in Einstein's relativity distinguish a local freedom ($c=$) at the level of individual observation for the $=$ of the constituted universal world-order.

In *general relativity* Einstein asks what is the universal translation, the $=$, that brings together the $c=$ of space and time, as locally defined expressions in relation to light. He finds the equation of gravity exactly translates one view of space and time with another, by uniquely bending the space and time of the universe to synchronise across local space-time perspectives. There is an *internal relationship* between space, time and matter, which results in each expression of space and time being endowed with a characteristic falling towards other bodies that accommodates each local version of space-time order. A child on a garden swing experiences gravity not as an external force, but a natural inclination of his/her space-time reality to pull down his/her motion towards the earth. Gravity = the behaviour of space-time integrating into a universal fabric a $c=$ freedom, acting out on local perspectives.

There is a challenge in relativity where all the reality of space-time collapses in on its own weight into a singularity, named a black hole. From this singularity a white hole emerges. But there is no way of navigating this darkness, for $=$ is looking to depict material static reality. The advantage of $c=$ in this case is the partiality of its sign allows us to follow a process in time, where the colour gradient of possibility develops the darkness into a form of light. $c=$ partially identifies space time threads that pull together the disintegration of the black hole into the united fabric of the white hole.

$c=$ poses partial statements of equivalence prior to weaving together the universe in an illumination of space-time. These partial threads of structure through $c=$ statements contribute gravitational attraction prior to visibility, consistent with dark matter.

We also note that quantum theory at the level of small particles is incompatible as theory with relativity, even though both claim they are describing fundamental orders of the universe. Schrodinger's wave equation derives electromagnetism, the weak and the strong force of the nucleus, as compensating for local freedoms of individual acts of participation in the collective harmony of the composite state. The forces argued in this way do not coalesce with gravity as argued through relativity. A bridge between these theories is built by letting $c=$ infer partial statements joining together into an illumination of the composite ground on which each theory is built. 6 as the most potent number of variations in physics corresponds to the number of dimensions of $c=$ statements that are needed to fully hold the interaction between darkness and illumination.

4. Universal Undefined Force

Every attempt to balance a local freedom with a universal picture leads to a force. The force in the balance of " $c=$ " in " $=$ " we call the UUF or "Universal Undefined Force". The UUF guides the universe without applying any certainty. Instead of seeing $=$ as depicting *external relationships* between entities, $c=$ applies to an *internal relations* of meaning that specifically joins together as unifying illumination different intimations of balance experienced locally. Experience guides realities as freedoms to come into coherence. The aim of any dialogue is to touch the centre of a meaning that brings light to many different paths of introductory inquiry.

The UUF is a translation of one view of balance in the world with another perspective such that our experience together guides the engagement to the illumination of $=$ as a bridge of coherence in meaning and structure. The UUF ensures that the fundamental constants are balanced just right to allow the world its expression (Davies). The $c=$ is exactly facilitating the connection of local potentials so they disclose together an instance of $=$ as quality unifying structure and meaning. Every partial result of science is thus exhibiting $=$ not as imposition of order, but as a **striking of balance**.

5. Colour Equations

The colours of light relate not as *external relations* to a world understood as explanation, but more in the vision of Goethe as internal pointers to an illumination in which freedom is guided to an encounter with meaning. The three colours of the lightening of dark and the three of the darkening of the light arrange themselves in a 6 dimensional wheel. Each colour can be experienced following careful attention to bend in natural accommodation and resistance to the other colours. The $c=$ invests the freedom of local expression with a universal clarity. The colour equals are different pathways that can bring together different freedoms of expression into collective illumination.

In Goethe's study *The Metamorphosis of Plants* (Goethe, 76–97) the organs, as leaf, sepal, petal, carpel, stamen, pistil are shown as the different variants by which the universal of meaning takes on material expression (Goethe). The different forms of space-time combine into the unity of organic function of the whole plant development. These mediating organs are as partial results of space-time under $= = = = = =$, which over the whole realise a new illumination.

Local impulses are guided to relate together internally to meet an $=$ as meaning at universal level. The balance of local freedom is in the articulation of the universe as meaning. The use of $c=$ unites relativity and quantum theory, gravity, electromagnetism, weak and strong force as an *internal relation* that guides different elements to illumination of meaning. The universe is a freedom that shapes and guides experience at all levels of scale from atom, to cell to organism, to discover their potential for meaning together.

This act of translation of colour into light fulfils its illumination into darkness at the centre of the nucleus. In an instant, darkness explored through the contour lines of colour breaks upon the illumination of insight. The translation of = to c= contours the field of local perspectives in a language of interpretation ordered in its receptivity to hear defining meaning. c= marks the rhythm, descending into and ascending from a singularity, giving 6-fold beat to time.

6. Conclusion

We have introduced an exciting symmetry between the universal of knowing, c=, and the particular of material physics. As the symmetry of material events are described by the fundamental forces, so the Universal Undefined Force navigates the in-between realm before the distinction into subject and object. Possibility opens up a dimension anticipating the ground of what can be known.

References

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