

# Exploring Numberland

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## Article Info

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## Disclaimer

*This paper is an 'opinion piece' and not scientific because the scientific method [as stipulated by Francis Bacon] contains measurement only and lacks relativity between two measurements [the theory], and secondly, the scientific principle is flawed because it relies on peer review of previous work and I believe that Newtonian physics is correct, but too complicated to allow modern theoretical physics to be seen. Because this approach is so new, it does not build on the peer reviewed work of others [energy plus organisation is nothing versus force equals mass times acceleration] and fills a hole in our thinking that currently lacks relativity by being top-down only. Thirdly, physics retreated back into Newtonian physics and measurement a 100 years ago and is possibly resistant to change, and on understanding this paper, your mind may be changed [irrevocably] and that may jeopardise your standing in the physics' community because physics does not include organisation explicitly. Fourthly, mathematics is considered to be a product of the mind, but the mind is shown to be a product of the same organisation that produces the universe and that should be recognised and appreciated, and it does answer the enigma that mathematical operators [concepts like pi etc.] equal an infinite series [entanglement] of fractions [destroying relativity] of numbers [organisation]. Fifthly, mistakes [contextual] may occur because I am a generalist, whereas a specialist is a specialist [conceptual] in a subject and would not be expected to make mistakes. This state of affairs is relativity and cannot be eliminated.*

## Abstract

To be a science requires an absolute unchanging base for comparison, especially when everything about us is an organisation and not 'real' as has been believed for thousands of years, and both physics and social science need attention in that regard. Mathematics has always prided itself as being solely a product of the mind and independent of the 'real' world, but what if the mind is based on the same organisation as the sciences then mathematics may not be what we think it is? Mathematics can be seen to be an organisation built on the same creation equation but using numbers instead of energy and the number-line for organisation and this can be seen as pi [concept] equals an infinite [entangled] summation [organisation] of alternating and reducing divisions [eliminating relativity from the number line] that are fractions of whole numbers [the number line]. This view is mind-changing and provides a base to reconsider mathematical physics' use of mathematics because the Fibonacci series, representing the physical, is linked to the mind through the golden ratio [intensity of emotion] and shows a requirement of relativity that requires a future Homo completus to align with the Fibonacci series that depicts Life that arises from the creation equation.

**Keywords:** The golden ratio; Fibonacci series; creation equation; fractal universe; the mind; organisation

## Preface

Homo sapiens is proving to be a disaster to itself and the environment by thinking top-down like the animals, from which it evolved, and the necessary goal [for relativity], a future Homo completus, can be easily created by changing the software of our thinking by understanding organisation. What is not easy to change are the existing disciplines of physics, mathematics and social science etc. that have been built up over thousands of years without the benefits of organisation. The creation equation [*energy plus organisation is nothing* [1]] shows the relativity in everything and, in particular, allows us to realise that multiplication is the forming of relativity [context] and division is the removal of relativity [concept] and this shows, I believe, the true meaning of multiplication and division [2]. That multiplication is not just 'a lots of b', or 'b lots of a' should send a sense of apprehension through mathematicians because it signals a possible fundamental flaw, indeed, it signals the relativity of summing, subtracting, multiplication and division and it also signals a bottom-up organisational relativity that is relative to the top-down thinking that we inherited from the animals.

Looking at the form [division of the dimensions] of the universe produces absolutes [that do not change] that are the basis of every science, whereas physics uses [in everyday life]  $F=ma$ , where F is force, m is mass and a is acceleration. Unfortunately, this complex absolute obscures theoretical modern physics and so that theory has been discouraged for the last 100 years. Mathematics has tried to insulate itself from the physical, by ignoring it, and social science has never had a theoretical base because no organisational absolutes have been recognised until now [3, 4, 5].

In other words, the best that Homo sapiens can do in referring to organisation is Occam's razor that says that 'the simplest organisation is usually the best', and, considering that organisation makes up 50% of the creation equation in our fractal universe, we may have to revise our thinking. But first, we must set goals to include relativity in everything that we do. This requirement may sound trivial, but goals cannot be made with top-down thinking because top-down thinking is guessing and it requires bottom-up thinking with regard to a different logic, which is, I believe [6]:

true, false, alternating true-false, our-other universe, chaos, restrictions, fractal-social engineering

## The Physical

Firstly, the functioning of the universe is due to the fractal generated by the creation equation [*energy plus organisation is nothing*] and using the division of the dimensions [energy, organisation, time and length] we find a hyperbola of time [leading to the big Bang, cosmic inflation, accelerating universe etc.] [7] and of distance [law of gravitation, quantum gravity] [2]. Touching base with experiment [Michelson-Morley], we find that the division of length by time is the speed of light that is constant to every measurer no matter what their speed. Physics accepts this reluctantly and will not

entertain the obvious that the universe is not 'real', but an organisation, probably because physics does not contain organisation explicitly. If we look at the relationship [entanglement] of the form [division] of the creation equation [ $E/O = i^2$ ], where E is energy, O is organisation and i is the square root of -1 and like one thing [of a relativity] does not exist], and accept that this is on the particle, Einstein's equation [ $E/O = c^2$ ] is measuring off the particle using a photon that travels at c with the relativity also measured by the organisation, and this relativity being  $c^2$  [2]. These two end points [i and c] must contain a reality [for particles with speed v] and within that reality  $E/O = v^2$ , which is the form of gravity [parabola] that comes from the acceleration of the universe and the requirement of relativity.

Unfortunately, physics is having trouble in coming to terms with this theory of modern physics and clings to an incomplete scientific measurement [Francis Bacon] that requires theory [for relativity] and a disastrous principle of science that tries to legitimise physical laws by acclimation built on prior published work. I believe that this theory is that which physics needs and has waited for, for a hundred years, in fact, physics has waited 350 years to have the law of gravity derived as the relativity [multiplication] of the absolutes  $[(E+O)/l]$ , where l is the separation of two particles] because Newton 'inspire guessed' it [1].

## Social Science

The universe is an organisation that contains organisation explicitly in the fractal generating creation equation and any organisation must form a reality [continuous and bounded] in every part, and in particular, that includes the physical, the environment, Life and our society. The physical environment must always have the form and functioning that is minimal [absolute 5] for the organisation to uniquely exist [as above] and the environment impacted by animals, and the animals themselves generally operate efficiently because they have evolved [over a long time] in that environment under the pressure of survival of the fittest. Thus, the organisational behaviour of the animals is usually close to the best for that environment and we can use that organisation confidently in a similar situation. However, our society has, what I call Socrates' questions, such as 'How much valour should we expect?', or, 'Do we agree on this line of action?' etc. These are question that are answered by a command [Kings, Queens, dictators etc.], voting, custom etc. that depends on the political system in use. Some people think that the best course of action is to elect a leader, or a group of politicians and let them run the country, some are content with hereditary Kings and Queens and some are resigned to living under dictators, and then there is religion that is often the handmaiden of governance and offers personal values. However, these organisations often seek to benefit themselves with generous pensions, wages, luxury goods etc. at the same time that they pay lip-service to democracy and public good.

Social science [with appropriate absolutes] leads to social engineering which is the control of the functioning of

technology, and is also the setting of goals [relativity] and the use of absolutes to derive organisation to achieve those goals using a basic form of democracy, which is voting by people that are informed, interested and prepared to vote. Clearly, 'informed' requires the pros and cons to be available, presented by recognised experts, perhaps on a website, so that the 'interested' can access it and vote by phone or similar in real time prior to the decision [3, 4, 5]. We can use modern technology and organisation to bring our governance system closer to the idealised ancient Greek system that we appear to desire. Governance, including religion, has, up until now, required agents, but mobile phones now allow us to take part in a true democracy. Homo completus is a goal that we can obtain by using modern technology, organisation and improving the mind of Homo sapiens.

The present system of electing one of two political parties that has (somewhat) unfettered rights is a sham and perversion of democracy that belongs in a bygone era [of Homo sapiens and predating the internet and mobile phones] and can lead to corruption, and I will give two examples that affected me. Firstly, I received a demand for money [presumably to business people and in my case for \$1,700] for 'Council's contribution to the NSW Government Emergency Services Levy' without any regard to my expectations as a citizen, and secondly, it appears that a previous Prime Minister took it upon himself to take over five portfolios of government ministers with the knowledge of the Governor General, who did not make this fact public [apparently it was not his job to do so, whereas I believe that it was, as an agent]. Parliamentarians are our (so-called) leaders, and yet our present system does not protect voters from the 'limelight' seekers that wish to strut the political stage. Compare the nineteenth century's Sir Henry Parkes, 'to him, it was an honour to serve the people. . . This was a time when neither parliamentarians nor government ministers were paid a penny' (Pasteur's Gambit, Stephen Dando-Collins, p 47). Are we more enlightened, or being conned?

## Mathematics

It is crucial to realise that the creation equation [*energy plus organisation is nothing*] is not  $E+O=0$ , as would be expected using mathematics or mathematical-physics because energy and organisation are orthogonal and so different that they are independent. This leads to the question of entanglement because every part of an organisation must be entangled with every other part and also, every organisation has a unique energy [because of absolute 5 in the physical]. Thus, if the universe is an organisation, then entanglement is necessary and physicists have measured the existence of entanglement of particles [created together] and the relativity [orthogonality] that quarks cannot be separated. Notice that relativity is the form of the creation equation [which is the functioning of the universe] and an example is the Heisenberg uncertainty principle that seeks to destroy the form of the universe [that momentum (energy) and position (organisation) cannot be measured precisely] and the relativity that quarks

cannot be separated [because they would become a particle with non-zero speed]. Orthogonality is like the Cartesian axes [completely independent (but entangled) except at the origin] and the dependency [functioning] is apparent at the origin, where the form is E/O.

I have divided zero by zero [E/O], which is frowned on in mathematics, but mathematics uses numbers and thinks in terms of similar things, such as sheep, whereas, I am using concepts and context that are independent, but logically entangled through the creation equation. The dimensions of time and distance are linear and dividing by them leads to hyperbolae of firstly, the Big bang, cosmic inflation and accelerating universe, with time [2], and secondly, with distance, quantum gravity [7]. In other words, the form of E/O is different because of the restriction of absolute 5. As a reality check, consider the quotation 'Heisenberg's uncertainty principle... This restriction on precise knowledge does *not* apply to all pairs of quantum properties. It applies only to some, which are said to be "conjugate variables". Position and momentum are conjugate variables, and so are energy and time (although the uncertainty relationship between them is subtly different from that between position and momentum) ... I have never found an intuitive explanation of what makes two variables conjugate'. (*Beyond Weird*, Phillip Ball, p 150)

The universe is created from an orthogonality [independent, but entangled at the origin] of energy [momentum] and organisation [position] and trying to measure an orthogonality [measuring each exactly is the same as between the two] is logically impossible because it is a restriction on the creation equation [independence]. Energy and time, along with organisation and length are dimensions and must be orthogonal so that ratios can uniquely define absolutes. This suggests that the current use of mathematics does not include the means to handle the bottom-up concepts and contexts that emerge from the creation equation and to provide an inclusive mathematics requires a relativity similar to that proposed for physics [a relativity of top-down and bottom-up organisation]. This requires adding the current mathematics to that derived from the creation equation as well as changing the software that our brain currently uses. Changing the way we think is the reason for the disclaimer, above, because the scientific principle requires everyone to think the same way [peer review] and this is a threat to careers, promotion etc. So, let's start at the beginning with how we think.

## The Mathematics of Concept-context

Mathematics was derived from the need to count sheep etc., but mathematics of thought would come from the creation equation and be simple and similar [in a fractal]. It starts with measurement because the universe [organisation] must return a unique answer [absolute 5] and that answer is called an affordance [1] and is the working of the creation equation. Posing a question increases the organisation of the subject [to include the questioner] and that raises the energy [via the creation equation] in the mind of the questioner that we call emotion and provides a measurement of the worth of

the question to the questioner. The string of action potentials [representing the thought] is possibly held [as action potentials contained in a circular path] that can be re-read to compare it's affordance to new insights and this could be the mechanism of the mind.

Mathematics is just as basic [as the creation equation] and [possibly] uses numbers [concept] and their relationship to other numbers [context], which must be similar [in a fractal]. The concepts [held as strings or permanent storage in the brain] are remembered [read] and produce affordances [emotion], the magnitude of which is the decision maker, and the amygdala is triggered by the level of the emotion to record concepts [experiences]. The more concepts that you remember, the more intelligent you are and that is the reason for academic learning and the experience that comes with age. In other words the number of concepts increases arithmetically, but the context [between the concepts] could [possibly] increase factorially! In other words, if you had 5 concepts then the context could be  $5 \times 4 \times 3 \times 2 \times 1$ , which is 120, so, increasing the context is our main aim and this requires logical organisation.

Home sapiens has done well in some areas [technology], but has been unable to secure an ordered world that is stable and not in danger of collapsing. We need Homo completus with a mind that must be more competent than it is currently and the secret is to increase the concepts, but much more importantly, the contexts by using relativity and bottom-up organisation. As an example of how context is holding us back, consider the scientific method of Francis Bacon that stresses measurement-only and that physics has restricted theoretical modern physics for the last 100 years and hence the necessity of the disclaimer, above.

## Mathematics

'Most mathematical activity involves the use of pure reason to discover or prove the properties of abstract objects, which consist of either abstractions from nature or – in modern mathematics – entities that are stipulated with certain properties, called axioms.' (Mathematics, Wikipedia) This reminds me of Bertrand Russell's attempt to define mathematics and his paradox on subsets because mathematics 'involves the use of pure reason' where mathematics is a subset of a mind that is built on a fractal that is simple and similar, as the universe, above. This situation occurs with top-down thinking without considering the restrictions imposed by the creation equation including relativity and bottom-up organisation.

I have often wondered why pi and other mathematical concepts are equal to an infinite series:

$\pi/4 = 1 - 1/3 + 1/5 - 1/7 + 1/9 \dots$  (Alex's Adventures in Numberland, Alex Bellos, p 152)

and further that 'eventually, calculus provided other infinite series for pi that were less pretty' (p 153). This is an enigma on which mathematics has been silent, presumably because mathematicians have no answer, even though many readers must have wondered why so many mathematical operators are infinite series? This is not a negligible question

when even the uninformed, like myself, wonder why this should be? The answer does not greatly affect mathematics, as it stands, but it challenges the common assertion that mathematics 'involves the use of pure reason' because this paper shows that the creation equation that generates mathematics is of the same form as the creation equation that presumably produced the universe [as would be expected in a fractal]. The general equation [*concept plus context equals nothing*] becomes the creation equation [*energy plus organisation equals nothing*] for the universe and for number theory is something like *a number plus the organisation of every number on the number-line equals zero* which shows the relativity of the numbers.

So, division destroys the relativity between numbers and shows the form [a value], multiplication restores the relativity and produces function and addition and subtraction complete the sideways relativity and top-down and bottom-up relativity [of organisation]. This can be seen in the summation of values that converge to pi, and also in the Fibonacci series, that a distinct amount is added with each term and is an alternative to the decimal notation, but it is the only way that the restrictions can be accommodated, which are total entanglement [the series] and relativity of operator [concept] with the organisation [number-line]. This must be, because a fractal is simple and similar. It has often been said that the universe is mathematical, but this theory says that both [the universe and mathematics] are the result of a fractal derived from relativity and we should expect similarity with the added restriction on the universe of simplicity [absolute 5], gravity [from accelerating space] etc.

From the supposition, that I propose, it is obvious that every concept [mathematical or otherwise] has an infinitely entangled context and that there is effectively no difference between physics, mathematics, social science etc. except for our convenience and the creation equation allows this change in thinking [compare 'involves the use of pure reason']. Thus, a lot of mathematics is based on the physical [compare as above 'in modern mathematics – entities that are stipulated with certain properties, called axioms.'] and a further example is 'the Fibonacci sequence is so called because the terms appear in Fibonacci's *Liber Abica*, in a problem about rabbits (p 286). 'An important feature of the Fibonacci sequence is that it is *recurrent*, which means that each new term is generated by the values of previous terms' (p 287).

Consider that Johannes Kepler, and later, Scottish mathematician Robert Simpson saw something even more incredible. 'If you take the ratios of consecutive F-numbers and put them in a sequence . . . then the values of the these terms get closer and closer to phi, the golden ratio.' (p 290) And further, 'the Fibonacci recurrence algorithm of adding two consecutive terms in a sequence to make the next one is so powerful that whatever two numbers you start with, the ratio of consecutive terms always converges to phi. I find this a totally enthralling mathematical phenomenon.' (p 291). I believe that organisation plays a big part [50%] in the affairs of the universe and that this organisation that effects numbers

does so for a reason that is discussed below [past and future relativities].

## Relativity

Relativity is the primary feature of the creation equation and is the relativity of each of two things that split from nothing and secondly, each thing is relative to everything else [entangled] because that is a requirement of an organisation, and these two effects are relative to each other. For example, from above:

firstly, pi [concept] is equal to an infinite entanglement of numbers that are unique forms by virtue of their division, and

secondly, 'the Fibonacci recurrence algorithm of adding two consecutive terms in a sequence to make the next one is so powerful that *whatever* two numbers you start with, the ratio of consecutive terms always converges to phi' (p 291) is a general organisation [context] that produces phi [a concept]. Note below that the Fibonacci series is a *general* statement of relativity [past and future].

These two examples show, I believe, that there must be two [for relativity] examples, firstly, an infinite series for phi, and secondly, an organisation that creates phi. In other words, everything has a relativity and as those relativities are independent then two proofs [at least] are available, a concept one and a context one. Thus physics has been working with 'one hand tied behind it's back' and social science has both hands immobilised because of their lack of understanding organisation.

Relativity is not just to be found in esoteric places as above, but in everyday life. We live with affordances continually because every time that we measure something [look, hear, feel etc.], the creation equation converts the organisation of whatever we measure [with a purpose in mind] into emotional energy in the mind-brain in the measurer [presumably where the question originated]. An organisation has to react with anyone questioning the organisation because firstly, that is the nature of an organisation, and secondly, all parts of the larger organisation containing the measurer are entangled. Thus the square is always involved and examples are  $E=mi^2$ ,  $E=mc^2$  and for particles  $E=mv^2$ , which acts like gravity, as above, as well as Pythagoras' theorem, Born's rule etc. that each require the square because the absolute [E/O] is registered by each party as a relativity [multiplication]. Note also that gravity affects everything and that it could be thought of as a relativity not a force, as above.

Relativity produces affordances that our brain uses to produce a mind [a comparison of emotions], as above, and is used by Churches and government with robes, uniforms, large buildings, parades, state funerals etc., as well as in mundane articles of art, poetry, beauty etc. to influence our emotions. It is the organisation within the article, such as the Mona Lisa painting that is reputed to contain the golden ratio, that was inserted by the artist Leonardo da Vinci. 'The major work on the golden ratio was Luca Pacioli's *The Divine*

*Proportion* in 1509, which listed the appearance of the number in many geometric constructions, and was illustrated by Leonardo da Vinci' (p 284). The most common representation of the golden ratio is to divide a line segment a, b into two segments  $(a+b)/a$  and  $a/b$  and when these are equal, they form the golden ratio (p 284). The division produces the forms [out of the entanglement] on the line that has the most organisation, and the most important organisation is presumably equality.

If something, in an organisational sense, is to have the most organisation, when measured [affordance], the energy produced is maximal [from the creation equation] when these two things are equal and absolute 5 [that it must be a minimum in the physical] must be obeyed. From the two points above, there is the organisation [context] of the Fibonacci sequence and the golden ratio [concept] we have to add the relativity that is the Fibonacci series. The relativity of distance and time is in the Fibonacci series because the present must have a past and a future [relativity] and the future is generated by the past as a fractal. This is the problem with our present society, that it does not have goals and has lost the betterment of survival of the fittest and this goal is important because without goals, we lose relativity. In fact, Life is the Fibonacci series because the future is built on the past.

'An important feature of the Fibonacci series is that it is *recurrent*, which means that each new term is generated by the values of previous terms. This helps explain why the Fibonacci numbers are so prevalent in natural systems. . . . one of my favourites concerns the reproductive patterns of bees.' (p 287) I could go further by saying that the Fibonacci series is the basis of Life, that two parents produce offspring and that the rationale behind the living of life is the previous and the future goals that must be in place for a society [macro] or individual [micro] to be optimally able to function. In a fractal, the social attributes are shown mathematically to be similar and the form of the Fibonacci sequence is shown by division of the terms:

$F2/F1, F3/F2, F4/F3, F5/F4$  .....

'or (to three decimal places): 1, 2, 1.5, 1.667, 1.6, 1.625, 1.615, 1.619, 1.618 ...

then the values of these terms gets closer and closer to phi, the golden ratio.' (p 291)

Thus, the Fibonacci series is a context of the structure of Life and the form is to divide the terms [of the context] that form an infinite series that leads to the concept, and that is phi, the golden ratio. However, in a fractal, we can expect a particular result [because of relativity at least] and indeed we find that this is a general organisational result of any sequence that shows the 'way of Life' by using the requirement of relativity [past and future goals]. 'So, just say we start with 4 and 10, the following term will be 14 and the one after that 24. . . .

$10/4, 14/10, 24/14, 38/24, 62/38, 100/62$  . . . .

2.5, 1.4, 1.714, 1.583, 1.632, 1.612, 1.620, 1.617, 1.618 . . . . (p 291)

The author [Alex Belos] goes on to say 'I find this a totally enthralling mathematical phenomenon' (p 291) and this is a typical top-down response because it is as he says, but the bottom-up organisational logic that I am using asks why is phi the weird number '1.61803 39887 49894 84820 . . . ' (p 284)? This excellent book gives the answer [that is tucked away in the appendix] because, I believe, bottom-up reasons show that much more insight is available than is recognised by Homo sapiens. If the universe were 'real', as has been believed for thousands of years, we accept what we get, but if the universe is an organisation, we expect a logical construction that is well ordered and obeys absolute 5 [principle of least action]. So, why is phi an irrational number? Not that being an irrational number is important, the important point is where it fits into an organisation where it has a significance [an organisation is built on and around important points]. Indeed, if the [organisational] concept of phi is rational, the value can be irrational [context], just as pi and many other concepts are, but it proves that the universe is organisational [on concepts] and that any other non-unique universe could not exist [absolute 5], so, is phi significant?

'The continued fraction is a strange type of fraction constructed by an infinite process of additions and divisions' (p 423) and is historically important [see Wikipedia, Continued fractions, History]. To understand how this works, let's take the fraction line by line and see that it closes in on phi:

$$1, 1+1=2, 1+1/(1+1)=1.5, 1+1/(1+(1/(1+1)))=1.66, \dots$$

'Continued fractions provide mathematicians with a way of rating how irrational a number might be. Since the expression for phi contains only 1s, it is the "purest" continued fraction that there is, and hence is considered the "most irrational" number.' (p 423) Hence, given that an organisation is a set of important points, our universe would appear to be an organisation.

## Conclusion and Prediction

I think that it has become obvious that everything can be considered to be based on the creation equation, even if we, or the universe create new universes, such as black holes, modern mathematics [built on axioms] or the weird world of modern physics [built on Newtonian physics]. Relativity requires setting past and future goals and that is largely missing in the affairs of Homo sapiens and is probably the reason, along with the lack of organisation that has contributed to the poor performance and problems besetting society and this is a direct result of the quality of our thought which needs relativity and especially bottom-up organisation to produce a Homo completus that we can rally around and finally separate us from the animals and then use social engineering to improve society in a macro and micro sense [3, 4, 5].

Generalists are different to specialists according to the creation equation and both are needed in a modern complex world, especially in the social sciences with social engineering having micro and macro distinctions in governance and religion. If a functioning society is our goal, what of past

experiences that are impeding it? Physics is mired in Newtonian physics and has been unable to progress with theoretical modern physics for 100 years, and indeed has apparently become religion-like and unchanging to the extent that it retreated into measurement [Francis Bacon]. Mathematics has insisted that it is a function of the mind and logic [Bertrand Russell] in spite of its basis in everyday life, and appears to seek an ivory tower. Well, ivory towers and sanctuaries exist for specialists, but the above shows the need for generalists to bring everything together and create an orthogonality, entanglement and relativity with all other disciplines.

In particular mathematical physics needs a proper base and that base could be an orthogonality between the creation equation of the physical and mathematics [*a number plus the organisation to every number on the number-line equals zero*], after all, how do we explain the Fibonacci series that is the mathematical representation of Life with a mathematics that ignores Life? [This is similar to that which Newtonian physics tries to do.] The enigmas of the Fibonacci series and the golden ratio are laid to rest by a complete mathematical physics where the Fibonacci series [function] divided by itself [for form] sums to a series that converges to the golden ratio [the maximum organisation and energy] that produces the maximum emotional effect on our mind, and possibly the best form.

There must always be a prediction [goal], and for the higher forms of Life, it is the Fibonacci series that shows the prediction [of future generations], and we see it in today's uncontrolled population increase. The introduction of rabbits into Australia led to a plague and attempts were made to find a biological weapon and Louis Pasteur proposed chicken-cholera (Pasteur's Gambit, Stephen Dando-Collins), but the attempt failed because of the self-seeking attitude of the participants and was accomplished decades later with the introduction of myxomatosis. Today, people are the pests, just as the rabbits were because we think like the animals with no goal for the future and we are waiting for the next [post COVID] plague to eventuate. The Fibonacci series and relativity are goal-seekers and we must set our sights on Homo completus and predictive social science [3, 4, 5] if we wish to come to terms with a new society.

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