## Humanist Information Taxonomy

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## Introduction

This follows on from my recent article pattern worship choice god as I continue to look for ways to classify and organize the information I have been collecting along my exploration into humanism.

We leave messages for our future selves.

## Framework

Group frameworks, schemas and Information organization - patterns.

## Population

Human groups - groups of humans working together or surviving in groups. Nation states. Individuals within Nations.

## Questions

1. What are the main human information patterns?
2. What are classification frameworks?
3. How sensible is it to try to limit/simplify the number of classification systems?
4. Why is my hypothesis any better than anyone else's?

## Initial Conditions

Groups, Nations, Schemas, Patterns, Messages, infinity.

## Self reference

All my models so far.

## Recent Explorations

Tales, Schemas
https://basic-formal-ontology.org/ Classification of Classification Taxonomy
https://en.wikipedia.org/wiki/List of Cambridge University Press book series Classification of Books Taxonomy
https://schemapedia.com/ Schema Taxonomy
https://en.wikipedia.org/wiki/RDF Schema Schema Taxonomy
https://en.wikipedia.org/wiki/Semantic Web Stack Schema Taxonomy

Parzival :Author(Wolfram von Eschenbach) :Year(1215) :Keyword(Group Hypothesis Choice) https://www.gutenberg.org/ebooks/47297 https://archive.org/details/Parzival https://en.wikipedia.org/wiki/Wolfram von Eschenbach

Perceval, the Story of the Grail :Author(Chrétien de Troyes) :Year(1190) :Keyword(Group Hypothesis Choice) https://www.poetryintranslation.com/klineasperceval.php https://d.lib.rochester.edu/camelot/text/bliocadran-introduction https://en.wikipedia.org/wiki/Perceval, the Story of the Grail

Erec and Enide :Author(Chrétien de Troyes) :Year(1170) :Keyword(Group Hypothesis Choice) https://archive.org/details/ericenid00chr https://www.gutenberg.org/files/831/831-h/831-h.htm https://en.wikipedia.org/wiki/Erec and Enide

Cligès :Author(Chrétien de Troyes) :Year(1176) :Keyword(Group Hypothesis Choice) https://www.sacred-texts.com/neu/cliges/cliges.htm https://www.gutenberg.org/files/831/831-h/831h.htm https://en.wikipedia.org/wiki/Clig\�\�s

Yvain, the Knight of the Lion :Author(Chrétien de Troyes) :Year(1180) :Keyword(Group Hypothesis Choice) https://en.wikisource.org/wiki/Yvain, the Knight of the Lion
https://www.gutenberg.org/files/831/831-h/831-h.htm
https://en.wikipedia.org/wiki/Yvain, the Knight of the Lion

Lancelot, the Knight of the Cart :Author(Chrétien de Troyes) :Year(1185) :Keyword(Group Hypothesis Choice) https://www.poetryintranslation.com/PITBR/French/DeTroyesLancelotPartIV.php https://www.gutenberg.org/files/831/831-h/831-h.htm https://en.wikipedia.org/wiki/Lancelot, the Knight of the Cart

The Canterbury Tales :Author(Geoffrey Chaucer) :Year(1400) :Keyword(Group Hypothesis Choice) https://www.bl.uk/collection-items/the-canterbury-tales-by-geoffrey-chaucer http://www.gutenberg.org/ebooks/2383 https://en.wikipedia.org/wiki/The Canterbury Tales

Parlement of Foules :Author(Geoffrey Chaucer) :Year(1382) :Keyword(Individual Philosophy Certainty) https://en.wikisource.org/wiki/The Parliament of Fowles https://www.poetryintranslation.com/PITBR/English/Fowls.php https://en.wikipedia.org/wiki/Parlement of Foules

Troilus and Criseyde :Author(Geoffrey Chaucer) :Year(1380) :Keyword(Individual Philosophy Humanism) https://www.gutenberg.org/files/257/257-h/257-h.htm http://www.gutenberg.org/ebooks/author/144 https://en.wikipedia.org/wiki/Troilus and Criseyde

The Decameron :Author(Giovanni Boccaccio) :Year(1353) :Keyword(Individual Philosophy Humanism) https://publicdomainreview.org/collection/the-decameron https://www.gutenberg.org/files/23700/23700-h/23700-h.htm https://en.wikipedia.org/wiki/The Decameron

Iliad :Author(Homer) :Year(-800) :Keyword(Individual Philosophy Humanism) http://classics.mit.edu/Homer/iliad.html https://en.wikipedia.org/wiki/Iliad http://www.gutenberg.org/files/2199/2199-h/2199-h.htm

Odyssey :Author(Homer) :Year(-800) :Keyword(Individual Philosophy Humanism) http://www.gutenberg.org/ebooks/1727 http://classics.mit.edu/Homer/odyssey.html http://www.gutenberg.org/files/2199/2199-h/2199-h.htm

The Consolation of Philosophy :Author(Anicius Manlius Severinus Boethius) :Year(524) :Keyword(Individual Philosophy Corruption) http://www.gutenberg.org/ebooks/14328 https://en.wikipedia.org/wiki/The Consolation of Philosophy https://en.wikipedia.org/wiki/Boethius

Advice to Young Men :Author(William Cobbett) :Year(1829) :Keyword(Individual Philosophy Development) http://www.gutenberg.org/ebooks/15510 https://archive.org/details/cobbettsadvicet00cobbgoog https://en.wikipedia.org/wiki/William Cobbett

Rural Rides :Author(William Cobbett) :Year(1830) :Keyword(Individual Nation Observe) http://www.gutenberg.org/ebooks/34238 https://en.wikipedia.org/wiki/Rural Rides https://www.visionofbritain.org.uk/text/contents page.jsp?t id=Cobbett

Troilus and Cressida :Author(William Shakespeare) :Year(1602) :Keyword(Individual Sex Development) https://en.wikipedia.org/wiki/Troilus and Cressida https://www.shakespeare.org.uk/explore-shakespeare/shakespedia/shakespeares-plays/troilus-and-cressida/ http://shakespeare.mit.edu/troilus cressida/full.html

The Western World's Greatest Books :Author(Project Gutenberg Australia) :Year(2020) :Keyword(Group Communicate Order) http://gutenberg.net.au/greatest-books-a.html https://www.thoughtco.com/list-of-shakespeare-plays-2985250

A Fortunate Life :Author(Albert Barnett Facey) :Year(1981) :Keyword(Individual Development Humanism) https://en.wikipedia.org/wiki/A Fortunate Life https://www.fremantlepress.com.au/products/a-fortunate-life https://www.austlit.edu.au/austlit/page/8222091

Mary Poppins :Author(Pamala Lyndon Travers) :Year(1934) :Keyword(Individual Development Family) https://en.wikipedia.org/wiki/P. L. Travers http://indbooks.in/mirror1/?p=426587 https://en.wikipedia.org/wiki/Mary Poppins (book series)

Taming Of The Shrew :Author(William Shakespeare) :Year(1592) :Keyword(Individual Development Family) https://en.wikipedia.org/wiki/The Taming of the Shrew https://www.opensourceshakespeare.org/views/plays/playmenu.php?WorkID=tamingshrew https://www.shakespeare.org.uk/explore-shakespeare/shakespedia/shakespeares-plays/taming-of-theshrew/

Amores :Author(Ovid (Publius Ovidius Naso)) :Year(-16) :Keyword(Individual Development Family) https://en.wikisource.org/wiki/Translation:Amores/1.7 https://en.wikipedia.org/wiki/Amores (Ovid)

Recent People<br>Geoffrey Chaucer :Year(1340-1400) :Keyword(Humanism)<br>https://www.poetryfoundation.org/poems/43926/the-canterbury-tales-general-prologue<br>http://www.gutenberg.org/ebooks/2383 https://en.wikipedia.org/wiki/Geoffrey Chaucer<br>Giovanni Boccaccio :Year(1313-1375) :Keyword(Humanism) https://www.famousauthors.org/giovanniboccaccio https://en.wikipedia.org/wiki/Giovanni Boccaccio<br>Wolfram von Eschenbach :Year(1160-1220) :Keyword(Poet) https://www.encyclopedia.com/people/literature-and-arts/german-literature-biographies/wolfram-von-eschenbach https://en.wikiquote.org/wiki/Wolfram von Eschenbach https://en.wikipedia.org/wiki/Wolfram von Eschenbach<br>Chrétien de Troyes :Year(1135-1185)<br>:Keyword(Poet)https://www.poetryintranslation.com/PITBR/French/DeTroyeshome.php https://www.ancient.eu/Chretien de Troyes/ https://en.wikipedia.org/wiki/Chr\%C3\%A9tien de Troyes<br>Homer :Year(-800--800) :Keyword(Poet) https://en.wikipedia.org/wiki/Homer https://www.famousauthors.org/homer

Boethius :Year(477-524) :Keyword(Philosophy) https://plato.stanford.edu/entries/boethius/ https://boethius.mus.cam.ac.uk/ https://en.wikipedia.org/wiki/Boethius
William Cobbett :Year(1763-1835) :Keyword(Philosophy)
https://en.wikipedia.org/wiki/William Cobbett
William Shakespeare :Year(1564-1616) :Keyword(Tale)
https://en.wikipedia.org/wiki/William Shakespeare https://www.shakespeare.org.uk/
http://www.gutenberg.org/ebooks/100
Ovid (Publius Ovidius Naso) :Year(-43-18) :Keyword(Philosophy) https://en.wikipedia.org/wiki/Ovid https://en.wikisource.org/wiki/Author:Ovid

## Recent Messages

"'all good things must come to an end"
And after souper gonnen they to ryse, 610
At ese wel, with hertes fresshe and glade,
And wel was him that coude best devyse
To lyken hir, or that hir laughen made.
He song; she pleyde; he tolde tale of Wade.
But at the laste, as every thing hath ende, 615
She took hir leve, and nedes wolde wende.) book 3 line 610' :Author(Geoffrey Chaucer) :Year(1380)
:Source Document(Troilus and Criseyde) :Keyword(Freedoms) https://www.gutenberg.org/files/257/257-h/257-h.htm
'All this mean I by Love, that my feeling Astonishes with its wondrous working So fiercely that when I on love do think I know not well whether I float or sink.' :Author(Geoffrey Chaucer) :Year(1382) :Source Document(The Parliament of Fowls) :Keyword(Love) https://www.poetryintrans/ation.com/PITBR/English/Fowls.php
'Why does a strange discordance break The ordered scheme's fair harmony? Hath God decreed 'twixt truth and truth There may such lasting warfare be, That truths, each severally plain, We strive to reconcile in vain? (SONG III. Truth's Paradoxes.)' :Author(Anicius Manlius Severinus Boethius) :Year(524) :Source Document(The Consolation of Philosophy) :Keyword(Chaos) http://www.gutenberg.org/ebooks/14328

## Patterning

5 Ages of Man, relationships of pairs, consolidation, parting, turmoil, explore, harmony, slavish devotion, tasks, challenges, choice, decision, deceit, lies, questions, reflection, regret, development, etc

We pass on messages and teach children of our past and possible futures. Poems, songs, pair of ideas, repeat, ingrain the messages - giving them the structures - using the language structures that Noam Chomsky (:Year(1928) :Keyword(Language Science) https://chomsky.info/) has explored - the patterns of learning and development that Jean Piaget (Year(1896-1980) :Keyword(Education) https://en.wikipedia.org/wiki/Jean Piaget https://archivespiaget.ch/en//) explored - the deep time, distances and unknown that science and math opens up - the close ties and relationships of pairs of people explored in narratives, trashy novels, tales, dramas - anticipation of possibility - certain unimaginable complexity and uncertain.

Using the Fisher hypothesis test framework (Ronald Aylmer Fisher :Year(1890-1962) :Keyword(Evolution Maths Statistics) https://en.wikipedia.org/wiki/Ronald Fisher https://en.wikipedia.org/wiki/Fisher\'s exact test https://www.genetics.org/content/154/4/1419) and aligning it with Einstein's https://en.wikipedia.org/wiki/Einstein field equations equation helped me explore so more questions - Seeing the history of thoughtful people gives me some notion of the journeys and challenges so far.

The current set of taxonomies and classifications are all interesting - many people have spent many years try to make order out of chaos and sense of the world. Searching for universal patterns. Euler's identity seems to make some kind of sense https://en.wikipedia.org/wiki/Euler\'s identity in an $n$ (recursive) dimensional universe of counting paths (of energy packets), steps, increments (learning) in a forward or backwards direction. The 4 box model seems about right to me as a building block inside a universe.


So for me it seems that any power function is just the same thing repeating at that exploring further finds little collections of patterns further and further away but we cannot be sure. This is the most complex notion for children to learn. I remember at the age of 4 suddenly realizing that my parents could cease to exist. It overwhelmed me I cried and slept between my parents that night in great distress.

How interesting it is that this the one thing we want to avoid the certainty of - why?

We happen to live in a universe of such impossible complexity, chaos and uncertainty that we have to switch our brains from being uncertain of everything (constant distress and panic) into a little probably certain of some things (constant trepidation).

The core of the human struggle lies with the constant reminder that the one thing we are the most certain of is uncertainty itself - in the form of that recursive bounded event consuming and at the same time producing infinity/zero time and distance. No wonder we are a little dysfunctional.

## We are engaged in exploring our best hypothesis away from certain loop death and infinity.

I can hypothesize a framework to describe the universe and examine the works, records and people through a high level human frame (as everyone before has done) - not necessarily as judgment of right or wrong good/or bad - but more in line with extremes of choice and patterns of sustainability.

I do not understand many things - I find Benford's series interesting
https://en.wikipedia.org/wiki/Benford\'s law - also Euler's identity - Parabolas mean something (is it
just recursion and Newton's and Leibniz's infinitesimals https://plato.stanford.edu/entries/continuity/ ?) - so does normal Gauss models (Johann Carl Friedrich Gauss :Year(1777-1855) :Keyword(Math) https://en.wikipedia.org/wiki/Carl Friedrich Gauss https://www.storyofmathematics.com/19th gauss.html
http://scienceworld.wolfram.com/biography/Gauss.html ). The cup of life and tree of knowledge and symbols have history and patterns connections as well.

For me - three main things seem to emerge:
Hypothesis - best illustrated by the statement - What is the first question. The ability to ask and discover.

Certainty - which I have connected to bounds and constraints limited by a recursive time and distance function of the speed of light. See https://humanistman.com/wp-content/uploads/2019/07/AbsoluteCertainty.pdf

Exploration - The journey humans take - the distance the travel along the network of Euler's paths in two directions - forwards and backwards (time/distance). Values 0 to 5 .

I can bring in my positioning model -5 to +5 from 0 to represent the hypothesis measure and the certainty measure. Where the values between -3 and +3 represent a "normal" degree of sustainable observance. +5 represents stuck in total certainty. -5 represents too uncertain to function or make guided, choices.
+5 hypothesis means questioning all the time, 0 is the null point (the child yet to learn to question) and 5 hypothesis means never questioning anything.

Exploration must be measured in steps taken along the path - this is the search of math - eliminating the complexity of choice and steps by constantly removing dimensions and complexity and ending up with Pi, Euler's identity and whole bunch of even more complex math constructs. I can rate the steps as 5 on the positive scale where +3 represents a ( 2 standard errors https://en.wikipedia.org/wiki/Standard error ) achievement, 4 is outside normal bounds and 5 might be so far away there may be no returning from exploration - right on the edge. 0 is null (child), 1 is little, 2 is adult learning. The Exploration is energy and distance together.


Interesting to note the alignment with the 4 box model, The hypothesis test, choice, knowledge frameworks I developed earlier, the inclusion of Einstein's equation where in reality - the uncertainty is provided the thing we are most uncertain of - c multiplied infinitely many times and the becomes the
one Certain hypothesis which we notice and explore with every increasing energy and hypothesis to build levels of certainty that every now and then get destroyed by the big constant hypothesis is the box we know of as most certain - that demon infinity, recursiveness and zero all together.

All potential lies with choices we make in these 3 dimensions.

| Value | Hypothesis | Certainty | Exploration |
| :---: | :--- | :--- | :--- |
| -5 | Incapable | Stuck |  |
| -4 | Denier | coward | no shared group values |
| -3 | Avoiding | wary | unsure |
| -2 | Ignorant | inert - at rest | setback |
| -1 | Compliant | learning | discovering |
| 0 | inert - at rest | Developed | taking the journey |
| 1 | Adult | Confident | Embracing |
| 2 | Accomplished | Destroying |  |
| 3 | Advanced |  | Boundaries |

Lets also recognize the Ramsey number of 3,3 which seems to be the minimum number of things required to exchange information with known things and discover completely new things that is able to be shared in a framework with the already known things.
https://en.wikipedia.org/wiki/Ramsey\'s theorem Note too that a Ramsay Number of $(5,5)$ has no one solution - only lower and upper bounds Ramsey $(5,5)=43$ or 48 . So keeping simple models below 5 (i.e. $1,2,3,4$ ) allows some complexity and cohesion to hold and after 5 things start to get a bit uncohesive - a bit vague and uncertain - probability (i.e. definitely uncertain) is about as good as it could ever get (probably). Paul Erdős, Paul Erdos https://en.wikipedia.org/wiki/Paul Erd\%C5\%91s
$\underline{\text { Graham's number, https://en.wikipedia.org/wiki/Ronald Graham, Euler's Identity, Pi all of math tends }}$ to follow a similar pattern. Putting a repeating self referential process in one part ( E , Graham, Power (e.g. squaring), Calculus - which just allows infinity to be bounded and constrained in an endless loop), another part for the exploration journey (i.e. direction) using imaginary numbers or a power function on -1 , and some kind of distance function like pi - i.e. each step along is a pi step. Then the exploration of relative dimensions and distances is Pythagoras https://en.wikipedia.org/wiki/Pythagorean theorem right angled triangles and sin, cos , tan tri-angulations of 3 things. https://www.mathsisfun.com/algebra/trigonometric-identities.html

So some would say we arrive in a universe of Potential Energy and Endeavour. Don't worry, we are not alone. Our families surround us and there are stories to be told and futures to uncover and be delighted with.

I think Ovid enjoyed exploration.

## Some Models to help Frame Things



So let us pretend and imagine we have the Benford series (Frank Albert Benford :Year(1883-1948) :Keyword(Math) https://en.wikipedia.org/wiki/Frank Benford https://en.wikipedia.org/wiki/Benford\'s law https://mdporter.github.io/SYS6018/other/(Benford)\ The\ Law\ of\ Anomalous\ Numbers. $p d f)$ which seems to represent number frequency in many things where 1 is represented $30 \%$ of the time and so on so it stretches to the right as the blue line from a high point of 1 in the middle. No-one knows what this means but it is common among real world things when numbers are involved.

Let us also image that we have direction of forward or backwards (maybe it is time, distance, both or something else?) so we have to do another blue line in the other/opposite/not same (it's a backwards forwards thing) direction. The point where they meet is called 1 - i.e. 1 digit of something - energy, exploration, hypothesis, step, path, journey, pi step or some thing like that.

So we can also imagine a zero point at the top of a normal distribution - where every thing is exactly equal - we can call this the zero point (i.e. we are all equal in the endless loop of certain death and certain infinity (happily ever after)).

So you can see we can bounce around mainly inside the averaging bounds of a forward and backwards dimension of one thing but the links and journeys are going to concentrate around the central bit (maybe this is the central limit theorem https://en.wikipedia.org/wiki/Central limit theorem being limited by paths and choice?). Journeys and explorations to the distances from the centre are big energy efforts. It is not quite a cup of knowledge/grail so much - more like a sieve? A worn out castle of closed rooms? Maybe it is a tree of knowledge? - well there are many repeating paths - well trod/worn paths - within the denser spaces (like prime pairs) that come together then branch out again so it is not quite like that either. A tree, cup , Minkowski space, open, closed universe are not bad symbols - at least they try to frame the issue. They are not bad hypotheses.

But the next step is a little more difficult to visualize - no amount of eigen vectoring https://en.wikipedia.org/wiki/Eigenvalues and eigenvectors is going to help give the absolute certainty which is craved for. Approximating infinity is like that state (Indiana) in USA that declared that Pi was equal to 3.2 just to stop the discussion.
https://www.forbes.com/sites/kionasmith/2018/02/05/indianas-state-legislature-once-tried-to-legislate-the-value-of-pi/\#1fc23bf3260a

That simple graph I present repeats across infinite forwards and backwards pairs tending to the same zero point, and large numbers of pairs (one step away) and so on. It's wonderfully beyond visualization and standardization by feminists, nazis, communists, libertarians, dictator, "experts", and judges - all the worshipers of idiotologies of certainness. It's not an extra $Z$ dimension in a 3 dimensional $x, y, z$ graph, its infinite $Z$ dimensions - it is paths beyond any degree of certainty and now we are inventing machines and methods to imagine numbers we cannot live long enough to write down and machines that consume the energy of whole planets to discover the smallest bits. The 500 hundred year cathedrals and monuments to structure and certainty - 1000 year pyramids and whole planetary computers in the pursuit of certainty (Douglas Adams :Year(1952-2001) :Keyword(Philosophy) https://en.wikipedia.org/wiki/Douglas Adams https://hitchhikers.fandom.com/wiki/42 https://jaydixit.com/files/PDFs/TheultimateHitchhikersGuide.pdf ).

So I can rate the very small number of humans who explore, hypothesize and obtain certainty in some kind of "balance" of sustainability; those who take a journey or those who stay stuck in a Fat, Dumb and Lazy human existence. There is a much larger story of Fat Dumb and Lazy - but I prefer to explore.

I now have a 3 level model to categorize with which could be of use.

## Further Musings on the Three Bounds Model - Choice

What is the first question.

Abbot and Costello - Who's On First https://www.youtube.com/watch?v=kTcRRaXV-fg, https://en.wikipedia.org/wiki/Who\'s on First\%3F 1930's.

Questions are the hypothesis which sets us on a quest, a journey for certain answers. The more answers we get close to the more questions we have.

The letter Q q is a circle with a little escape tail - a perfectly appropriate symbol of a way out of the endless loop of certainty. The Hypothesis.

Explore is a big word - it implies big things through complexity and danger. There are so many other E words that convey similar ideas in answer to quests and hypothesis. Musicians explore through patterns, repeating, starting and ending. Novels, plays, poems - all literature exposes the 3 bounded model and changes in time and distance with solid pairs, choice and possible threes. The E words which resonate for me with Exploration are Education, Enjoyment, Entertainment, Experiment, Expose, Exposition, Exhibition, Eagerness, Energy, Effective, Experiment, Encouragement, Environment, Experience, Every, Evaluation, Eccentricity, Eve, Ego, Egg, Event, Evolution, Electron, Eventually, Engines, Efforts, Ernest, Endeavour, Earn, Edge, Else, Enemy, Entreaties, etc. quod erat demonstrandum Q.E.D. https://en.wikipedia.org/wiki/Q.E.D., https://wordfinder.yourdictionary.com/words-that-start/e/

So I think Explore is a fairly solid concept.
'Mount and begone. The world awaits you.' :Author(Mervyn Peake) :Year(1959) :Source Document(The Gormenghast novels) :Keyword(Choice Chaos Explore) https://archive.bookfrom.net/mervyn-
peake/40634-the gormenghast trilogy titus groan gormenghast titus alone.html
https://www.azquotes.com/author/11447-Mervyn Peake


So we could imagine that the orange line represents the hypothesis line away from the center in steps as seen by the Explorer (the blue line) and the Certainty (the red line of certain death loop or infinity loop).

It looks a little like music, sound, light/wave theory, phases, states, electron paths, storylines, poetry, dance and many other things.

One pattern of the musical and story lines motifs is - that the observer - notices, observes and imagines what is going to happen next - we know how the story is going to go - what the next few notes of the music are, the repeating patterns, - we get entertained and educated by observing the choice of the slight variations and changes of patterns. If change and variation is too abrupt - it disturbs us from our flows - puts us off balance and the trapeze artist loses their footing - can they recover their patterns? we wonder - can they resume the dance?

Johan Sebastian Bach https://www.bl.uk/onlinegallery/onlineex/musicmanu/bach/ was prolific and highly repeatable - his patterns changed in his exploration maybe less than others. Tchaikovsky https://en.wikipedia.org/wiki/Pyotr llyich Tchaikovsky explored in many patterns for long lengths with inner patterns and grand finales, codas, symphonic master pieces. The choral works of Beethoven https://en.wikipedia.org/wiki/Symphony No. 9 (Beethoven) and Handel https://www.smithsonianmag.com/arts-culture/the-glorious-history-of-handels-messiah-148168540/ are Grand explorations of group harmonies and dischords. Explorers influence other explorers like https://en.wikipedia.org/wiki/Also sprach Zarathustra Richard Strauss "tone poem" based on Nietzsche's Thus Spake Zarathustra https://en.wikipedia.org/wiki/Thus Spoke Zarathustra.

The patterns of exploration of Art (in all its forms), Music, Dance, Voice, Science, Invention, Design repeat. While "artists" will explore paint, sculpture, weaving, knitting, tapestry, architecture, etc - not everyone can explore in other fields as well as they do their own. So it is rare to see multi-talented explorers. Explorers of exploration itself can become a certainty loop.

There are patterns within the 3 bound model. The Certainty bound and the Hypothesis bound are tightly linked. Explorers observing humans straying too close to certainty have to undergo choices to leave them to their certain bounds or try to show journeys towards more hypothesis and exploration. Children naturally accept hypothesis and exploration - adults less so. Hypothesis and exploration are tightly linked and can become a journey to kno - where and not Jean Piaget like - stepwise development - no building blocks of some certain probable hypothesis are made. Also on the Hypothesis and Certainty bounded pair we get the humans (Hitler youth, etc) who do not want to explore they would rather
eliminate hypothesis altogether and seek to destroy all need for any exploration or questioning the "authority" of certainty.
(SouthPark creators Trey Parker, Matt Stone , Cartman "Respect My Authoritah" South Park https://www.youtube.com/watch?v=XbebjUYItKw South Park Wiki
https://wiki.southpark.cc.com/wiki/Cop Cartman)

## The Three Bound Model - A Model for Choice

'When you come to a fork in the road, take it' :Author(Yogi Berra) :Keyword(Humanism Choice Individual) https://ftw.usatoday.com/2019/03/the-50-greatest-yogi-berra-quotes

The Hypothesis, Exploration, Certainty model is fairly sold and coherent. It is useful as a model for choice and exposing the potential.

It corresponds with scientific methods, management methods, rational and structured thought but also allows a large amount of random walks on paths . l.e. don't be TOO (extremely) certain or extremely UNCERTAIN of anything - Hypothesis (the questions), Certainty (The Answers) of Exploration (the process or journey). Discoveries can be made and learning can progress. Don't stray TOO FAR on the journey.

Humans arrive as little self centered creatures who learn about pairs. Binary choices is a trap. The tendency of mainstream media, government, politicians, scientists, universities, policy makers, etc to see the world as binary is dangerous and corrupting. Too much Single (self focus) is corrupt and so is Binary focus to groups.

I hypothesize that in a world full of humans who communicate using a three bounded model without too much extremism that sustainability and other human measures (whatever you want to hypothesize about) could be a Good thing.

## Choirs - singing from the same page

The orchestra conductor usually leads the choir. At the first sitting you go through you score and the master tells which notes to change, which bars to remove - what parts of the score need fixing or changing. When the scores are printed by the same company - then the page numbering is the same but if each singer brings in different versions it is not as easy - sometimes each printed version will have different errors from copying. I remember once singing a D instead of a D\# against the rest of the second tenors simply because I had missed the amendment. It took some time for me to be identified as the culprit. Sometimes of course, the master chose to re-interpret the music and it is so tempting to see the pattern and ask the question - "after reaching this point in the pattern so often why did it suddenly become a C\# instead of C natural" - and change the author's intent back to the pattern you felt was more in keeping. Was it a misprint - surely it could have meant to be like this? While not actually in the same league as book burning of the Nazis or the re-writing of history of feminists and other idiotologies - it comes from the same place.

The Beatles discover an $11^{\text {th }}$ chord and some more complexity to their well patterned ditties but The Beach Boys had already gone a little further. Handel's Messiah is well loved for the shared journey that the orchestra, soloists and choir takes. Gilbert and Sullivan were excellent - singing parts with 2 tenors, 2 basses, 2 Sopranos, 2 contralto plus 4 leads can be fun. The one I remember well is while dancing in Oklahoma at the Canberra Theatre we had 6 chorus parts, 5 different lead parts and the orchestra in full voice. Balancing your way through that performance every night is exhilarating. Working with June Bronhill, Denis Olsen and Colin Fisher (RMC Band leader) in various shows are nice memories as well.

## A Dream Last night

Last night as I was about to fall into sleep I became aware that I was about to fall to sleep and imagined myself in a bed in a room with door open. I also imagined someone else in my imagined bedroom coming towards me to ensure I went to sleep. This disturbed me and I in my dream bed tried to fight it they came closer - consoling me and saying it was alright - I groaned aloud in my real bed and fought it and woke up with a real notion of dragging myself up from somewhere quite deep. I thought about what happened for a while. Was it death? Had I stopped breathing and was I reminding myself to breathe again. I could not tell. I stayed awake for a while and then slowly went to sleep. After some time I was in a dream state - a vivid but rambling dream. I was my age now - an old man but still at work in an office of my own working on tasks that no-one in the office really understood, used or thought was needed. Yet somehow I was tolerated.

I was at a desk in my own small office building like a 4 walled room with a door. To get to other parts of the work place you went out the door and there were all these other loosely and randomly arranged 4 walled buildings - some with two doors and some with one. They seemed patterned on the Hogan's Hero's TV show concentration camp set - there was some notion of some kind of general boundary for the collection of buildings and workers.

It was night and dark and I was walking around all the buildings and I could not find my way back to my desk. I went around for quite some time - not panicked - just lost. I must have gone through a room or someone came out because a woman said "Can't You find your Way?", "Surely you must know how to find your way back to your desk". This was not said as a criticism or abuse - it was a neutral comment without any personal attack or judgement. Everyone seemed competent and knew what they were doing.

I am not sure who she was or what happened next but I did find my way back to my room and started work again. I started thinking about why I was there at work and if it really mattered. Then unexpectedly - because no-one ever visited me - a blonde well dressed, attractive women came into the room. She was slight build, pretty and slightly smaller than me. I seemed to remember her as working in the main room with the big boss of the work place. They have some kind of successful and productive work arrangement which made the whole place work. For some reason she wanted to talk to me and I could not understand why but there was some vague notion that she was the one who got me the job in the first place. She sat on my desk - which I thought was a little strange and started looking and me and talking to me in a friendly way. I noticed her hair was heavily styled with a little bun on top and a mass of
confusing swirls that fell about in organized but stylish disarray. She had a normal well proportioned woman's body and she wore some kind of checkered top and medium length plaid skirt and stylish shoes - it was mess of styles but somehow made her seem more complex and interesting. While I was noticing this I had not noticed that she had got much closer to me and was smiling and entreating me. She wanted me physically. This aroused me both in the dream and in reality and I had understood from her that I was being propositioned. I was thinking about what I thought about that but I seemed to be in a general mind to agree - because there was no compelling reason - nothing came to mind - not to entertain the idea - when in walked another women.

This woman was smaller than the first had dark stylish long hair and was much younger than the first woman who was just a bit younger than me. The dark haired women was of an age where life would still be a wide and long experiment - There was a notion that she was not as experienced as myself and the blonde woman. She wore a brown vertically layered leather dress with a wide leather belt with maybe a brass buckle? She too smiled and made entreaties and was sitting on my lap. I was taken aback. There was some confusion but there was a consistency of entreaties and cooing sounds, touching and smiling. Both of them were smiling at each other and they had indicated that they were in this together and that they had planned it and set out to do this. They both seemed attractive to me, eager and not under any duress or with any hidden motives other than enjoyment itself. I agreed and said "what is the plan - I mean where exactly was anything going to take place?" The blonde woman said "Oh not here of course - later after work".

I was trying to think what that meant - does it mean they were playing me for a fool, was trust expected? Should they have told me that up front, Why was the delay? Was a trick of sorts? But then it all seemed very reasonable in the end to have a place and time away from here.

Then we were on an all white bus with no markings. White simple leather single seats in pairs ( 4 seats wide with and aisle down the centre) with a rounded chrome metal bar at the top of each seat. I was sitting against the window about three seats back from the front - the blonde woman on the seat to my left and dark haired women on my lap - both were touching my face smiling and lightly kissing me from time to time and I wondered what the other people on the bus thought - the women were fully engaged with me and I was noticing things. I noticed the other people were doing what all bus people do, keeping to themselves, lost in their own thoughts and certainly taking no notice of me. This was regular trip yet it all seemed strange to me. The road was a flat and lightly windy road - similar to the NSW northern rivers - flat farms stretched out and into the distance with mountains on the right and on the left was the sea. The rivers flowed from the right hand side to the sea on the left. The rivers were not big or wide and the bridges seemed like just a flat extension of the road from the land which was only slightly above the water level - maybe 2 or 3 metres. There were many rivers and many bridges with small areas of land in between.

As we crossed one bridge I noticed that a tidal wave was coming along the river (from the mountain side of the road) as we approached and just as we crossed I thought that the wave top must have breached the top of the bridge and surely the bus could have been washed from the bridge - but somehow we survived. No-one noticed anything and said anything. I thought this is silly - here we are on a low road
on low bridges and these waves come along - is this the way it has always been? - I mean what kind of regular bus journey is this? Then as we approached the next bridge there was a much bigger tidal wave approaching bridge and people started to notice and started to panic and cry that we were all going to die. As the bus crossed the bridge we were fully engulfed and the bus was now under water but we were all safe on top the vast deep sea with the land not too far away and we started swimming. Everyone was calm and swimming in the one direction but the blonde women had dived down after the sinking bus. I wanted to go back for her but the dark haired woman was with me and still smiling - "Oh do not worry about her, she has just dived down to get the eskies from the back of the bus" - they can be used as floatation devices if we need them". She said "It is an easy swim - you know how to swim don't you?" This was said to me again the in same non-judgemental and neutral way. I responded "I can swim but not very well but at least if I can't swim - I can rest for a while and float on my back - we can all float can't we". So we made our way to land as a group and I think eventually the blonde woman made it but I am not sure because I woke up.

## Memories - Death

On the 11/06/1987 in a hospital near one of Sydney's beaches I was with my brother in the isolation ward on the intensive care section of the hospital. We were staying the accommodation at the hospital my parents and I - to visit my brother who was dying. We had spoken with Professor John Dwyer and he had informed us the Rob's T-cell count was down to 12 . We had been there for some days and Rob insisted that we visited the other men in the other separate building where the HIV and aids patients were kept. We had visited them as well and spoken with them because many of them had no contact with anyone from outside. Dad and I had played golf in the previous few days as my effort to take his mind off things and mum had bought Rob a special blue bath robe with his name on it which Rob wore in his bed. On that day Rob asked me pointedly looking straight at me "We had a good life didn't we?"

I agreed immediately and then told him the stories of or shared lives - the great times we had as kids in Darwin, the many places we lived, the kittens we played with - trying to remember all their names, I brought back as many memories of journeys as I could. How good our parents had been to us and how lucky we were to live the lives that we had lived. The Christmases we had, the presents and games we played, Firecracker nights. The schools. The time in Darwin Rob had played a character in Bear suit in play. I did not remind him about his suicide attempts, lifeline calls, interventions, the abuse and nastiness of people around him, the bullies, the haters, the low-lifes, the dividers - I talked about family and journeys and food and love of dad and mum and fun of silliness - a wardsman bring back mentally ill ( $M$ ward) patients who were escaping into lake Burley Griffin, his calling to nursing - saving lives working in hospitals, rescuing drugs addicts working the emergency ward in St Vincents. Through a constant stream of tears.

Rob noticed this and asked the Nurse "What's wrong with Jonny". I said "its OK Rob nothing is wrong everything is going to be alright - don't you worry (about me)." The Nurse smiled at me and I do not know whether it was then or later that Rob - who was already on Palliative Drugs - had asked the question "What's the fatal dose?"

The next day, 6 days after his $30^{\text {th }}$ birthday, mum dad and I went into the ward - past all the intensive care beds and into the isolation ward to see the body. I did not know how to console my parents - dad and mum were as upset as anyone could be seeing their beautiful young child die this way. I started collecting things and seeing him one last time to see that he had gone. And then the journey continues.

My father got cancer and I spent time with him. We did not talk much but he was happy to be just quietly sitting and watching my children play in the sand on the beach at Mooloolabah. I suspect it reminded him of his time playing on the beaches in north Queensland where he grew up and his time with his family and brothers - one who he had organized to read his eulogy and tell his story after his death. My mother told me that in his last days she had kept him in the front room (she had worked as a nurse) and looked after him to the last night. He got up with great energy and determination and asked for ice cream. She was amazed at the difference in him - he was determined. He yelled at her to get it quickly and sat himself down with all of his energy ate the ice cream and made his way back to bed to relapse into his comatose state. That night or the next mum called the ambulance and he died within hours at the hospital.

My aunt Pat's cancer was aggressive - she had been told that a doctor in Sydney could cure it. In the end all that happened is that she ended up in greater pain from the operation and a few more months. When I visited her - my mother was with her in the hospice. I was dealing with ex girlfriends, the theatre, my children and the normal problems of life and she was keen to hear about my journey - what was happening in the outside world. "Tell what you think about the new ABC station news 24 ". My life challenges - the journey outside the closed box.

After her death I helped mum with all the estate and then mum got cancer. She was strong and determined and I was living with her in the front room and helping organize Pat's and her affairs. Again there was an operation and great determination but she never made it out that hospital but there was plenty of time for all the visits. In the last words towards the end I said "don't worry mum we will all be alright" and she soundly rejoined me - "Of course you will". She was determined that we would be and irritated that I was stupid enough to suggest it was an issue at all. I wasn't there when she died - the hospital rang me but I missed the call. Later that day I went in and started dealing with all the issues. And the Journey continues..

## Messages

Life is Joy. Discovery learning and exploration. It's a big world out there.

## References

1. Ages of man , Hesiod's Five Ages https://en.wikipedia.org/wiki/Ages of Man olden Age The Golden Age is the only age that falls within the rule of Cronus. Created by the immortals who live on Olympus, these humans were said to live among the gods and freely mingled with them. Peace and harmony prevailed during this age. Humans did not have to work to feed themselves, for the earth provided food in abundance. They lived to very old age but with a youthful appearance and eventually died peacefully. Their spirits live on as
"guardians". Plato in Cratylus (397e) recounts the golden race of men who came first. He clarifies that Hesiod did not mean men literally made of gold, but good and noble. He describes these men as daemons upon the earth. Since $\delta \alpha i \mu o v e \varsigma ~(d a i m o n e s) ~ i s ~ d e r i v e d ~ f r o m ~$ ठańmoveऽ (daēmones, meaning knowing or wise), they are beneficent, preventing ills, and guardians of mortals. Silver Age - The Silver Age and every age that follows fall within the rule of Cronus's successor and son, Zeus. Men in the Silver age lived for one hundred years under the dominion of their mothers. They lived only a short time as grown adults and spent that time in strife with one another. During this Age men refused to worship the gods and Zeus destroyed them for their impiety. After death, humans of this age became "blessed spirits" of the underworld. Bronze Age - Men of the Bronze Age were hardened and tough, as the war was their purpose and passion. Zeus created these humans out of the ash tree. Their armor was forged of bronze, as were their homes, and tools. The men of this Age were undone by their own violent ways and left no named spirits; instead, they dwell in the "dank house of Hades". This Age came to an end with the flood of Deucalion. Heroic Age - The Heroic Age is the one age that does not correspond with any metal. It is also the only age that improves upon the age it follows. It was the heroes of this Age who fought at Thebes and Troy. This race of humans died and went to Elysium. Iron Age - Hesiod finds himself in the Iron Age. During this age, humans live an existence of toil and misery. Children dishonor their parents, brother fights with brother and the social contract between guest and host (xenia) is forgotten. During this age, might makes right, and bad men use lies to be thought good. At the height of this age, humans no longer feel shame or indignation at wrongdoing; babies will be born with gray hair and the gods will have completely forsaken humanity: "there will be no help against evil." Ovid's Four Ages The Roman poet Ovid (1st century BC 1st century AD) tells a similar myth of Four Ages in Book 1.89-150 of the Metamorphoses. His account is similar to Hesiod's, with the exception that he omits the Heroic Age. Ovid emphasizes that justice and peace defined the Golden Age. He adds that in this age, men did not yet know the art of navigation and therefore did not explore the larger world. Further, no man had knowledge of any arts but primitive agriculture. In the Silver Age, Jupiter introduces the seasons, and men consequently learn the art of agriculture and architecture. In the Bronze Age, Ovid writes, men were prone to warfare, but not impiety. Finally, in the Iron Age, men demarcate nations with boundaries; they learn the arts of navigation and mining; they are warlike, greedy, and impious. Truth, modesty, and loyalty are nowhere to be found.
2. Started 20th Sep, 2019 Ed Gerck Planalto Research Can infinitesimals be eliminated from mathematics?
https://www.researchgate.net/post/Can infinitesimals be eliminated from mathematics
3. Continuity and Infinitesimals First published Wed Jul 27, 2005; substantive revision Fri Sep 6, 2013 https://plato.stanford.edu/entries/continuity/
4. Graham's Number https://en.wikipedia.org/wiki/Graham\'s number (just needing 1,2,3 to be used in functions)
5. Too big to write but not too big for Graham By Rachel Thomas and Marianne Freiberger https://plus.maths.org/content/too-big-write-not-too-big-graham
6. Cern Large Hadron Collider Energy Use https://home.cern/resources/faqs/facts-and-figures-about-lhc The total power consumption of the LHC (and experiments) is equivalent to 600 GWh per year, with a maximum of 650 GWh in 2012 when the LHC was running at 4 TeV. For Run 2, the estimated power consumption is 750 GWh per year.
The total CERN energy consumption is 1.3 TWh per year while the total electrical energy production in the world is around 20000 TWh, in the European Union 3400 TWh, in France around 500 TWh, and in Geneva canton 3 TWh.

7 Energy by Hannah Ritchie and Max Roser First published in 2015; most recent substantial revision in July 2018. This article previously covered aspects of energy access, including access to electricity and per capita consumption; you now find this material in our entry on Energy Access. https://ourworldindata.org/energy , https://ourworldindata.org/energyaccess
8. Douglass Adams - https://hitchhikers.fandom.com/wiki/42 42 (or forty-two) is the Answer to the Ultimate Question of Life, the Universe and Everything. This Answer was first calculated by the supercomputer Deep Thought after seven and a half million years of thought. This shocking answer resulted in the construction of an even larger supercomputer, named Earth, which was tasked with determining what the question was in the first place.

