

# Humanism – Meta Frame – Equality and Diversity

A Guide for Human Decisions

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# Frame

Hypothesis: Same (Equality) and Different (Diversity) are words used to describe ideas in a natural tension. Life on planet earth represents the result of that struggle.

## Questions

1. What are the number of variables involved?
2. What is the basis for choosing variables?
3. Are there repeating sustainable patterns?

Population: Individual Humans, Groups, Planet

Measure: Supporting model for – choosing variables, Observe, Manage Issues, Agree

Assumption: Language describes things which can be measured

Information Sources and Topics: Statistics

Motivations: Look for sustainable patterns and limits

Initial Conditions, Self reference: Language and Numbers



# Life is complex

## Clustering (grouping) Objects, Events and Humans

- 1) Life is complex and we are learning more all the time  
<https://www.nature.com/articles/nmicrobiol201648>
- 2) Competition and Cooperation (and mutual benefit) are features of life  
[https://en.wikipedia.org/wiki/Universal\\_Darwinism](https://en.wikipedia.org/wiki/Universal_Darwinism) , Daniel Dennet: Darwin's Dangerous Idea  
<https://www.youtube.com/watch?v=lv1MMX9Z9s4>
- 3) EVOLUTION AND ETHICS AND OTHER ESSAYS By Thomas H. Huxley ,  
<http://www.gutenberg.org/files/2940/2940-h/2940-h.htm>
- 4) Human Life games and patterns - Politically Correct Movement – Jordan Peterson Politically Correct Game <https://www.youtube.com/watch?v=W2u62u4entc>
- 5) Human Life patterns and Archetypes - Maps of Meaning, Jordan Peterson  
<https://jordanbpeterson.com/maps-of-meaning/>
- 6) Human Archetypes - Scott Jeffrey – Lots of Archetypes <https://scottjeffrey.com/archetypes-list/> ,  
Tarot Cards <https://labyrinthos.co/blogs/tarot-card-meanings-list>
- 7) Statistics Distributions – Poisson – looks a bit like Pareto and Normal depending on the values  
<http://mathworld.wolfram.com/PoissonDistribution.html>  
[https://en.wikipedia.org/wiki/Poisson\\_distribution](https://en.wikipedia.org/wiki/Poisson_distribution) ,  
<https://humanistman.com/home/frames/humanism-frames/> <https://humanistman.com/wp-content/uploads/2019/02/05-Humanism-%E2%80%933-Population-Distributions.pdf>

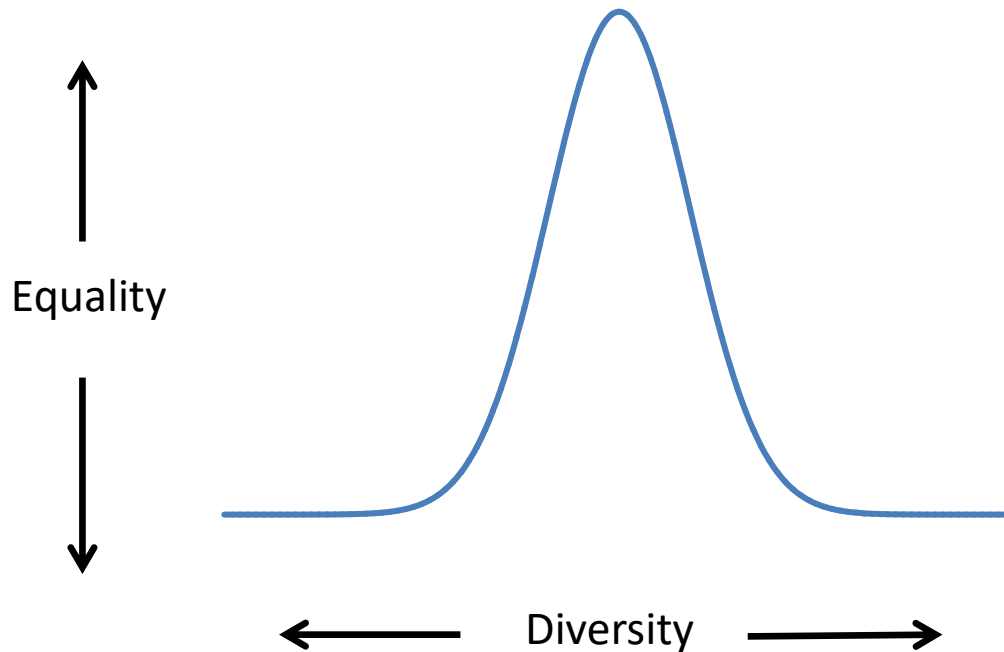


# Interesting Techniques, Constants and Formulae

1. Leonhard Euler's, (Napier's) Number -  $e$  and Euler's identity  
[https://en.wikipedia.org/wiki/E\\_\(mathematical\\_constant\)](https://en.wikipedia.org/wiki/E_(mathematical_constant)) ,  
[https://en.wikipedia.org/wiki/Euler%27s\\_identity](https://en.wikipedia.org/wiki/Euler%27s_identity)
2. Jacob Bernoulli – Probability, Law of Large Numbers  
[https://en.wikipedia.org/wiki/Jacob\\_Bernoulli](https://en.wikipedia.org/wiki/Jacob_Bernoulli)
3. Elon Lindenstrauss [https://en.wikipedia.org/wiki/Elon\\_Lindenstrauss](https://en.wikipedia.org/wiki/Elon_Lindenstrauss)
4. Asymptotic equipartition property  
[https://en.wikipedia.org/wiki/Asymptotic\\_equipartition\\_property](https://en.wikipedia.org/wiki/Asymptotic_equipartition_property)
5. Large deviation Theory [https://en.wikipedia.org/wiki/Large\\_deviations\\_theory](https://en.wikipedia.org/wiki/Large_deviations_theory)
6. Golden Ratio [https://en.wikipedia.org/wiki/Golden\\_ratio](https://en.wikipedia.org/wiki/Golden_ratio) ,  
<https://www.mathsisfun.com/numbers/golden-ratio.html>
7. Clustering [https://en.wikipedia.org/wiki/Cluster\\_analysis](https://en.wikipedia.org/wiki/Cluster_analysis) ,  
<http://www.statsoft.com/textbook/cluster-analysis>
8. Entropy <https://en.wikipedia.org/wiki/Entropy>
9. For Whom the Bell Holds - Performance distributions rarely fit a bell curve. Christopher Peterson Ph.d. <https://www.psychologytoday.com/au/blog/the-good-life/201205/whom-the-bell-holds>



# Population Tension



Equality is a measurement of something at some time. E.g. human height. The problem is how precisely (e.g. number of decimal places) and accurately we measure.

At extreme precision and accuracy no two humans are exactly the same height – a graph of exactly 1 person at every height = extreme diversity.

Hence we approximate (lower precision) the definition of the variable being counted.



# Infinite Diversity

↑  
Equality

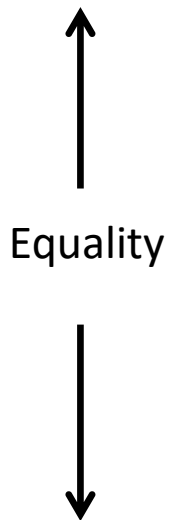


← Diversity →

Extreme precision and accuracy  
of the definition of the variable  
being counted.



# Infinite Equality



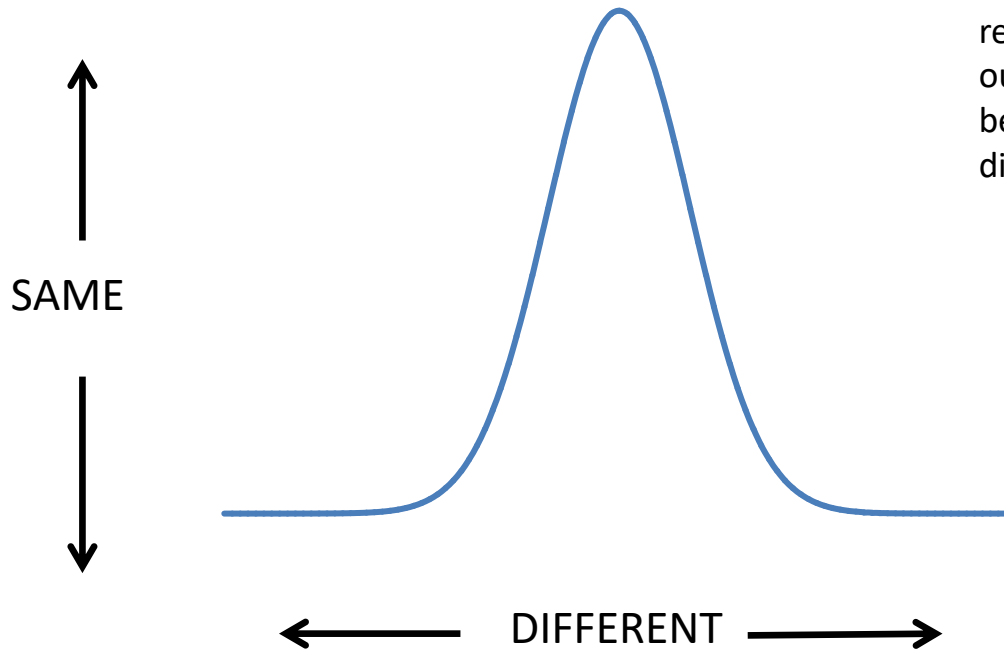
Extremely low precision (less detailed) definition of the variable being counted.  
e.g. somewhere between exactly zero and infinity

Diversity - Difference is defined by precision

Equality - Sameness is defined by accuracy



# Population Tension



This distribution is one idealized representation of the successful outcome in life's competition between same (Equality) and different (Diversity).

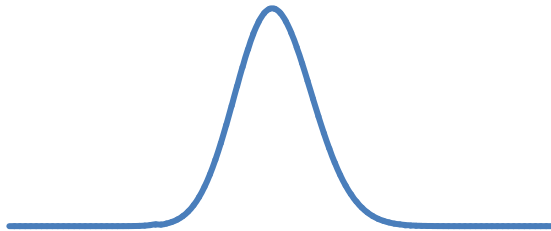




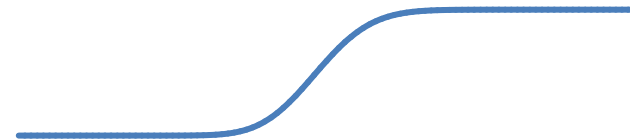
# Examples – Average Height

Poisson Distribution EXCEL functions –  
Noncumulative and Cumulative

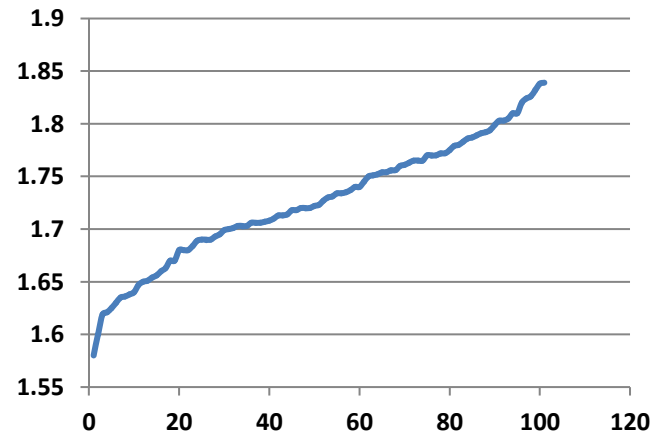
**Poisson**



**PoissonC**



**Average Male Height By  
Country**



Average Male height by country

<http://www.averageheight.co/average-male-height-by-country>



# Reasoning

It seems many real life measurements of collections of things or events over time follow a distribution - Gauss, La Place, Poisson, logistic and others – sometimes like a bell curve. Normal distributions are not only useful for measurement but also for prediction and used are frequently in a number of different models. It's a highly repeated pattern in many forms of life.

Consider the concepts Diversity and Equality – one way is to consider them dimensions of the same thing –but lets imagine they are not. If we graph something like height and we get something like a bell curve - What is that telling us? So we could say the diversity of height is represented by the x line Diversity in measurement order and the Number is represented by the y line Equality (i.e. the number of people with Equal height).

So we have a general model that can model the concept of Diversity and Equality for anything.

We can ask the questions “How diverse should THING be?” “How equal should THING be?”

Lets examine SALARY – everyone gets exactly the same amount - infinite equality.

People get different (diverse) SALARY – well if they get different SALARY the how many get each different SALARY?

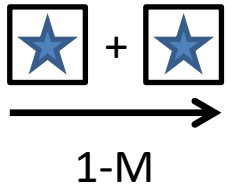
If everyone gets a completely different SALARY (diversity) then we have infinite diversity (we could make it a rule for each new person).

The answer as demonstrated by successful evolution approximates one of the main statistical distributions. Usually based around Pi  $\pi$  and Euler's Number  $e$  and/or a repeated process of a particular formula involving power functions. Distributions mainly look like curves.

Its about concepts and measurement as well – lets examine height. We group heights into numbers. Its arbitrary groups. If we measure at ever increasing accuracy (decimal places) we approach infinity for different types of height and could eventually reach the point on no return i.e. every one is different height – infinite diversity.

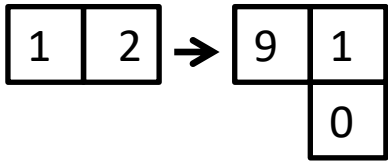
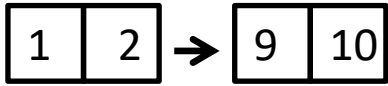
So the main point when discussing issues around equality (Sameness) and Diversity (Differentness) is where you define the topic – how accurately we measure and how we know they are the same - what makes it different or the same – you have to consider both things together.





# Numbers

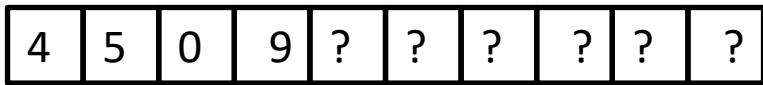
(how did we invent them? – How to count)



? Missing

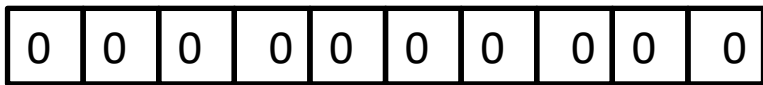
0 Zero (short hand representation)

=4509



$\xrightarrow{1+}$

Zero (full representation)



$\xrightarrow{1+}$

How numbers progressed – “A Star” , “two”, counting words, group words, add (a process), abstract methods, abstraction, zero, infinity

Then we created the ability not just to add or count one thing (e.g. Star) but all things.

Then we created a symbol method (numbers not words) for representing the names of the all numbers.

If we had no Stars do we have 0 Stars? This requires a knowledge of Stars.

The answer to How many Stars you have is NULL or MISSING where the question makes no sense. “How many flying spaghetti monsters do you believe in? NULL”



# Characteristics of Variables

How Many humans have the Same .. Variable?

In looking at some ABS and other data some concepts emerged:

- **Variable Source** (event or test) – where did the variable information come from?
- **Type**(time difference, location, opinion, constraint, comparison (height, weight)) – mostly opinion or constraint
- **4 objects types** (Planet, Constraint (group, Nation, etc), Human, Event)
- **Unit**(time (elapsed time), Metres, Kilograms, map (location), count, arbitrary, currency, YN)
- **Precision**(infinite (height, weight, time difference, location (map)), defined (arbitrary, YN))
- **Accuracy**(low, medium, high (generally for arbitrary defined))
- **Approximation**(years (time difference), integer (count), address, nation, dollar, CM (height, length) , gram (weight))

Most ABS measures seem to be around - test, constraint, arbitrary, count – in other words subjective test of some series of questions or evaluations. So the general accuracy would be low or medium. The precision can be medium to high because it is based on a series of defined observations, questions and responses.

Income – for example – is not an easy thing to define or measure - see ATO.

# Other References

Math (distributions, central limit theorem, probability, random, regression, set theory)

Isaac Newton (1634-1727),

Gottfried Wilhelm Leibniz (1646-1716), Abraham de Moivre (1667-1754), Roger Cotes (1682-1716), Thomas Bayes (1701-1761), Daniel Bernoulli (1700-1782), Leonhard Euler (1707-1783), Marquis de Condorcet (1743-1794)

humanity's "present state, and those through which it has passed, are a necessary constitution of the moral composition of humankind"; that the progress of the natural sciences must be followed by progress in the moral and political sciences "no less certain, no less secure from political revolutions"; that social evils are the result of ignorance and error rather than an inevitable consequence of human nature,

Pierre-Simon Laplace (1749-1827), Carl Friedrich Gauss (1777-1855), Simeon-Denis

Poisson (1781-1840), Adolphe Quetelet (1796-1874) *Sur l'homme et le développement de ses facultés, ou Essai de physique sociale* - he proposed that normal variation provided a basis for the idea that populations produce sufficient variation for artificial or natural selection to operate