

# 13 - Humanism - Activation

## Activation

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# Frame

Hypothesis: What is Acting?

Hypothesis: Acting is a major advancement which leads to ideas like choice and motivation.

## Questions

1. What life forms can Act?
2. What are the simple Acts?
3. If things happen which are not Acts – what are they?

Population: Individual Humans, Planet

Measure: Supporting model for Choice, Motivation

Assumption: Choices can be made by Humans.

Information Sources and Topics: Books, History, WWW - including those links provided.

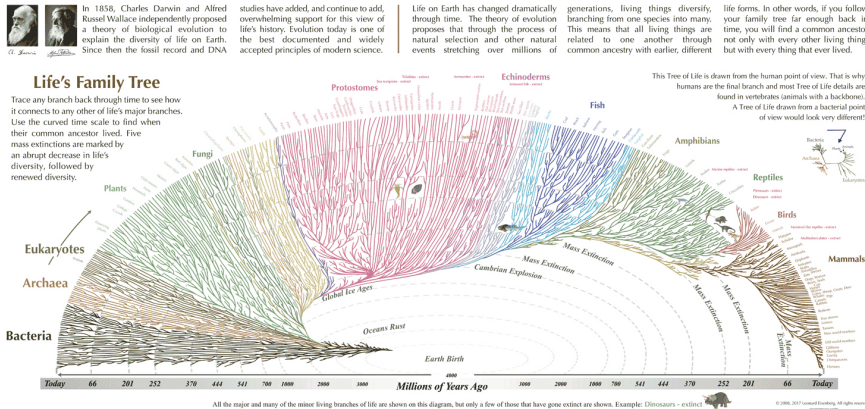
Motivations: look at Fat, Dumb and Lazy compared to Motivations

Initial Conditions, Self reference: Life, Observation?, Choice

# Life

## In search of action

### Evolution: life on Earth is one big extended family



Leonard Eisenberg - Tree of life diagram with geological time

<https://www.evogeneao.com/explore/tree-of-life-explorer#archaea-and-archaea> shows bacteria as the oldest life form.

- “There are approximately  $5 \times 10^{30}$  bacteria on Earth,<sup>[10]</sup> forming a biomass which exceeds that of all plants and animals” “There are approximately 39 trillion bacterial cells in the human microbiota as personified by a “reference” 70 kg male 170 cm tall, whereas there are 30 trillion human cells in the body.  
“<https://en.wikipedia.org/wiki/Bacteria> (humans are more bacteria than other things)
- Bacteria are made up of things – they have structure, differentiated parts, complex molecules, can move and other features. - does “life” exist before that?
- Uncertainty, Energy (wave/particle)/Mass, Fermions/Bosons, Quark-Gluon plasma, Standard Model Particles, Probability, Electrons (Lepton), Nucleus, Atoms, Hydrogen (1), Carbon (6), Nitrogen (7), Oxygen (8), Chemistry, Molecules, Carbon chains, Amino Acids, Proteins, Catalysts (e.g. Enzymes), Cells, RNA, DNA, replication, “Life” > (reproduce, Sex), - clearly questions from science - mathematics, physics, chemistry, biology and zoology - merge in discussing “Life”
- <https://archive.org/details/LivingSystems/page/n9> James Grier Miller - framework for examining Life - a major systems based analytical work – which puts **Reproduction** and **Boundary** as first/common principles.

# Living Systems Thinking

The book Living Systems by James Grier Miller represents a major analytical work. I am struck with the frames and observations and how similar they are to my own. Is that because we have the same analytical approach or because there is some “Truth” in the hypotheses? (How biased am I?)

It can all be looked at critically because he has written it down in a book. It gets 26 mentions in university syllabus <https://opensyllabus.org/result/title?id=292058082476> but it does not appear to be a major university study area.

The Basic concepts and systems analysis approach represents an informative approach to examining the world and its complexity. Concepts like “Territory” and “Echelon”, the Le Chatelier principle (e.g. homeostasis), steady-state, “Conflict”, “Feedback”, “Purpose and Goal” – all help exploring Action.

Survival – Adaptation (control over environment?) emerge as concepts.

“5.5 pathology, 5.6 Decay and Termination” – may also relate to my ideas around Human Corruption, similar to radioactive decay and Newton’s Laws, Inertia, Entropy (heat loss)

Out of a “soup” of small things (somehow) emerges things which form **boundaries** (e.g. cell walls) and can **reproduce** themselves. **Information flows** within and between. This seems to be the start of life.

*What makes proteins (a highly stable particle) “reproduce” ? - If they can be split and joined from a quark/gluon soup? Is it a combination of **quantum rules** and “**random**” **energy & mass** (**uncertainty**)*

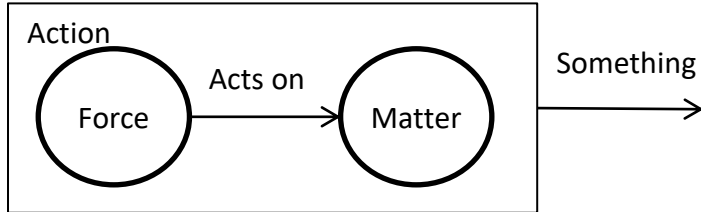
# Before Life

or Life the Universe and Everything

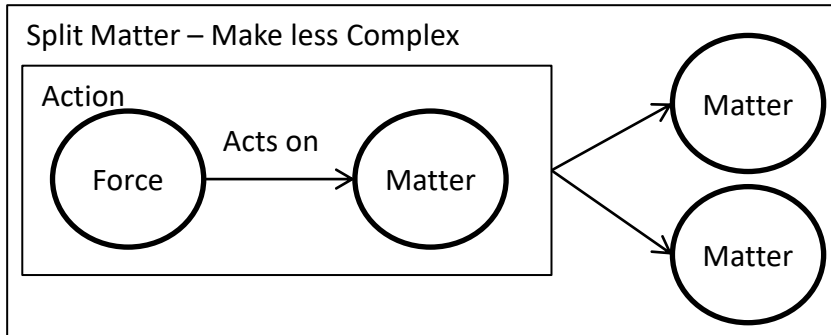
[https://en.wikipedia.org/wiki/Life,\\_the\\_Universe\\_and\\_Everything](https://en.wikipedia.org/wiki/Life,_the_Universe_and_Everything) (Douglas Adams)

- We define life in a certain way - the “start” of the universe could be seen as the start of all life.
- (almost – we can never reach zero or infinity) Zero then observable big bang where many things come into existence and lots of things happen very quickly – **inflation** puts randomness through the universe’s soup of things which causes the shape of everything
- *“The Planck team’s breakdown of the universe’s constituents is 4.9 percent ordinary matter, 26.8 percent dark matter and 68.3 percent dark energy”*
- Common ideas emerge from the creation of the universe:
  1. **Clumping** - things **join together** to become **more complex** (Is all “randomness” based on inflation? Determinist/Fatalism, Choice or [Superdeterminism](#)? Does the Planck limit and Heisenberg uncertainty explain **randomness**? Why does **observing** single photons/electrons/atoms change the [double slit](#) interference outcome? (**Probability** becomes **Certainty** with known accuracy and precision))
  2. **Relationships** - simple things and complex things exist together in relationships, **information is exchanged (force particles)**
  3. Energy (particle/wave theories) “**Acts**” to cause things to happen
  4. **Boundaries/Hierarchies/Resilience Levels/Resonance Levels/Harmonics** (e.g. Electron clouds in Atoms) - emerge because of 1 & 2.
  5. **Stability** - by definition we only experience the more stable clumpings of things – things that do not last are not easily observed - photons, electrons are long lived and stable. Elementary particles form stable Atoms, Stable Atoms form Stable Molecules – complexity/stability increases.

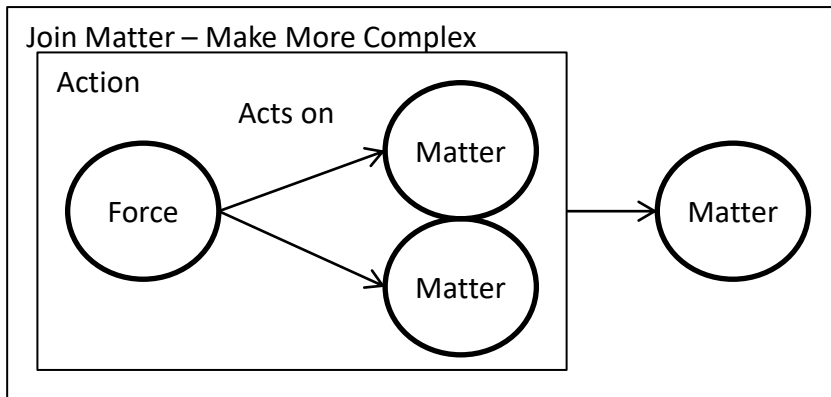
# Act - Matter - Mass and Energy



Force "Acts" on Matter to Change (Move, Agitate (energize), Motivate) – after a threshold - if it becomes "unstable" something happens. (e.g. electrons become more "excited")

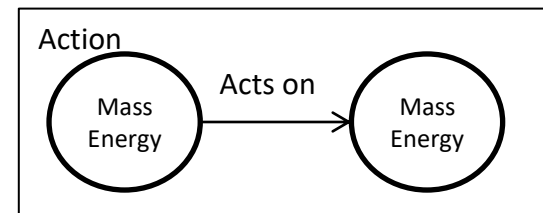


Force "Acts" on Matter to Unjoin (Split)



Force "Acts" on Matter to join

**Mass & Energy always? coexist which means**



# Thresholds - Stability - Sustainability

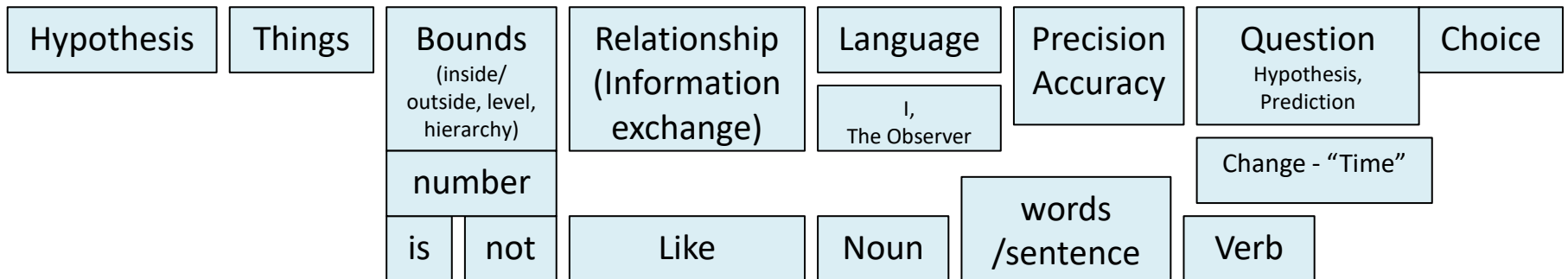
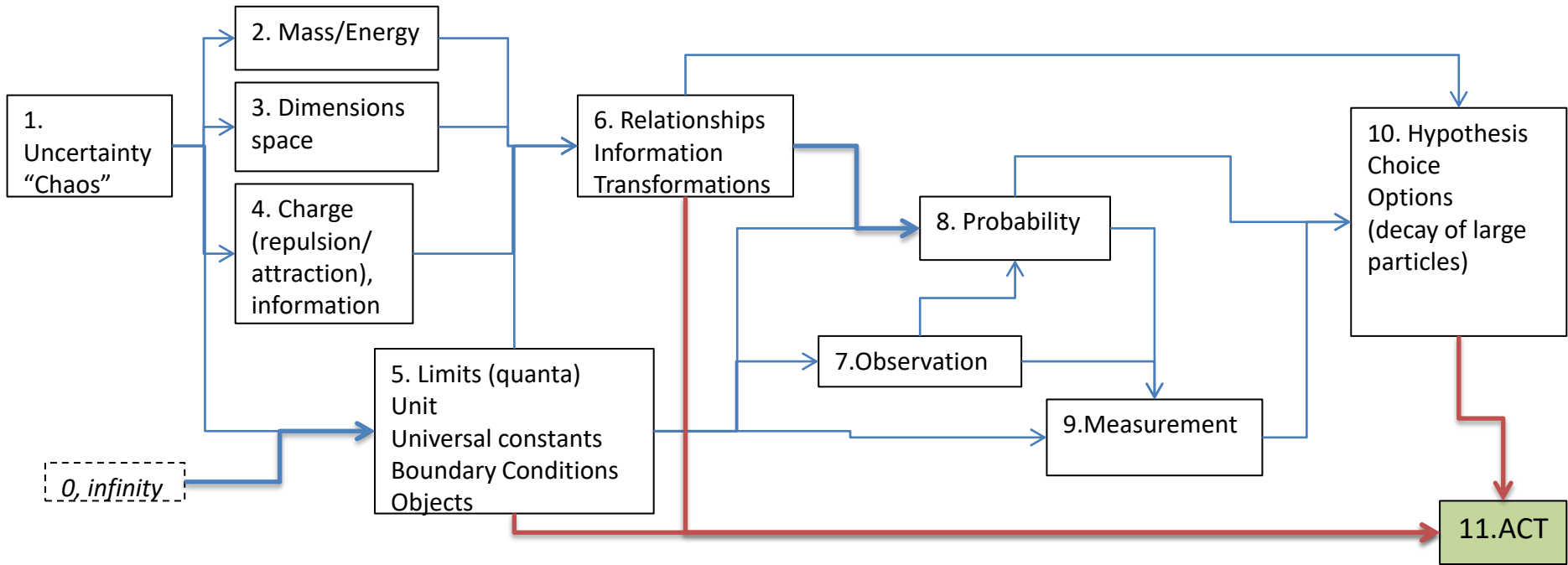
- Force in order of relative strength ([Strong, Weak, Electromagnetism, Gravity](#)) “Acts” on mass, mass bounces into other mass – something happens sometimes (position, velocity, uncertainty)
- Quarks and other small particles are unstable and **decay** by themselves, they stabilize in relationships to other particles within other structures, and have short half lives
- Quantum Entanglement is a strange type of relationship  
[https://en.wikipedia.org/wiki/Quantum\\_entanglement](https://en.wikipedia.org/wiki/Quantum_entanglement)
- Atoms vary in stability - energy can disrupt electrons, proton/neutron numbers combinations are less stable, high proton numbers are less stable.
- Parts of Atoms **decay** (unjoin) in different ways
- Chaos theory also shows some formulas (even when describing large complex planet and human systems) become less **predictable (stable)** with certain values.
- **Time** and **changes** over Time measure stability (is time really [emergent](#) and just our way of describing observed change (position, velocity, mass, energy) in our universe?)
- More Stable/Sustainable things don't **unjoin (split)** as easily as a result of Force
- H,C,N,O – are the most stable, non metal (at earth temperatures and pressures), non-noble elements (the first 40 elements are the more stable than the rest)
- Carbon can easily **join** to other atoms – it has 4 “valence” electrons (outer shell) - these electrons can be **shared** with other atoms to form highly **stable** covalent bonds.
- Other types of chemical bonds are **less stable** – shorter [half lives](#)

# Action - Forces

- Protons/Neutrons are very stable but have many rapid changes within as the gluons collide with the quarks exchanging information like colour, charge, spin and other dimensions. Energy inputs can result in higher resonant states (**levels**) until under too much (**limit**) energy and pressure things collapse. 1% of the energy/mass equivalence of protons/neutrons is accounted for by the rest mass of the constituent 3 quarks - the remainder is [Quantum chromodynamics binding energy](#) (massless? gluons).
- The universe could be fully deterministic but even if it was it would not matter because we still Observe, Choose and **Act**
- There is a balance between **uncertainty** and **observation** and **limits**.
- Protons, atoms, molecules are huge clouds of probability and uncertainty in some dimension until observed. This may be the realm of choice and “Action” as we know it. Humans and other life forms are huge collections of these “things”.
- *About 99% of the mass of everyday matter ([baryonic matter](#)) is, in fact, chromodynamic binding energy – high energy, massless?, particle/wave, probabilities & uncertainty*



# Conceptual development of the universe



# The Centre of all things and Pi - $\pi$

Divide by  $2\pi$  (circumference/2\*diameter of a circle) to get “distance” from a start point (centre)

(position/momentum – uncertainty principle)

<https://en.m.wikipedia.org/wiki/Pi>, [https://en.wikipedia.org/wiki/List\\_of\\_formulae\\_involving\\_%CF%80](https://en.wikipedia.org/wiki/List_of_formulae_involving_%CF%80),  
[https://en.wikipedia.org/wiki/Euler%27s\\_identity](https://en.wikipedia.org/wiki/Euler%27s_identity), [https://en.wikipedia.org/wiki/Boltzmann\\_constant](https://en.wikipedia.org/wiki/Boltzmann_constant),  
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***Does  $x/(\pi * 2) = \text{radius} - \text{point to probability point}$  (“distance”) - measurement of any unit  $x$  – length, mass, other – where  $x$  is all (infinite – and impossible to measure) probabilities?***

Humans invented language to describe the world – numbers, maths, models, etc

- We described point to point **changes** in Euclidian geometry (**position** in space **dimension**).
- We described **distance** as being the difference between 2 **positions** (in n dimensional space)
- We invented **time** to account for the **observed change in position**
- We described **mass \* velocity (distance/time) = momentum**.
- Then we said you can not **measure momentum** and **position** at the same time.
  
- Pi is related in all dimensions to many measurements of many units.
- As soon as any **unit (1) of measurement** is defined – a smaller unit can exist – to infinity (**levels**)
- A “point” on a circle is theoretical – it represents **infinite probability and levels** (dimensions, degrees of freedom, [Euler's identity](#)? (could be part of the story))
- Are Lines are 1 dimensional models of infinite dimensions ?
- Are Circles are 2 dimensional models of [infinite dimensions](#) ?

# Human Acts

- Observe
- Describe/language - constants
- Share - information exchange
- Form Relationship (stability, bounds) - (99% internal activity in multiple dimensions)
- Deal with inputs (energy/change) - levels - (shift between stable states – resonate - harmonics)
- Split – change relationships
- Probability/Hypothesis/Choice/Act

# Humanism Framework

## Activation concepts

<https://fs.blog/mental-models/>

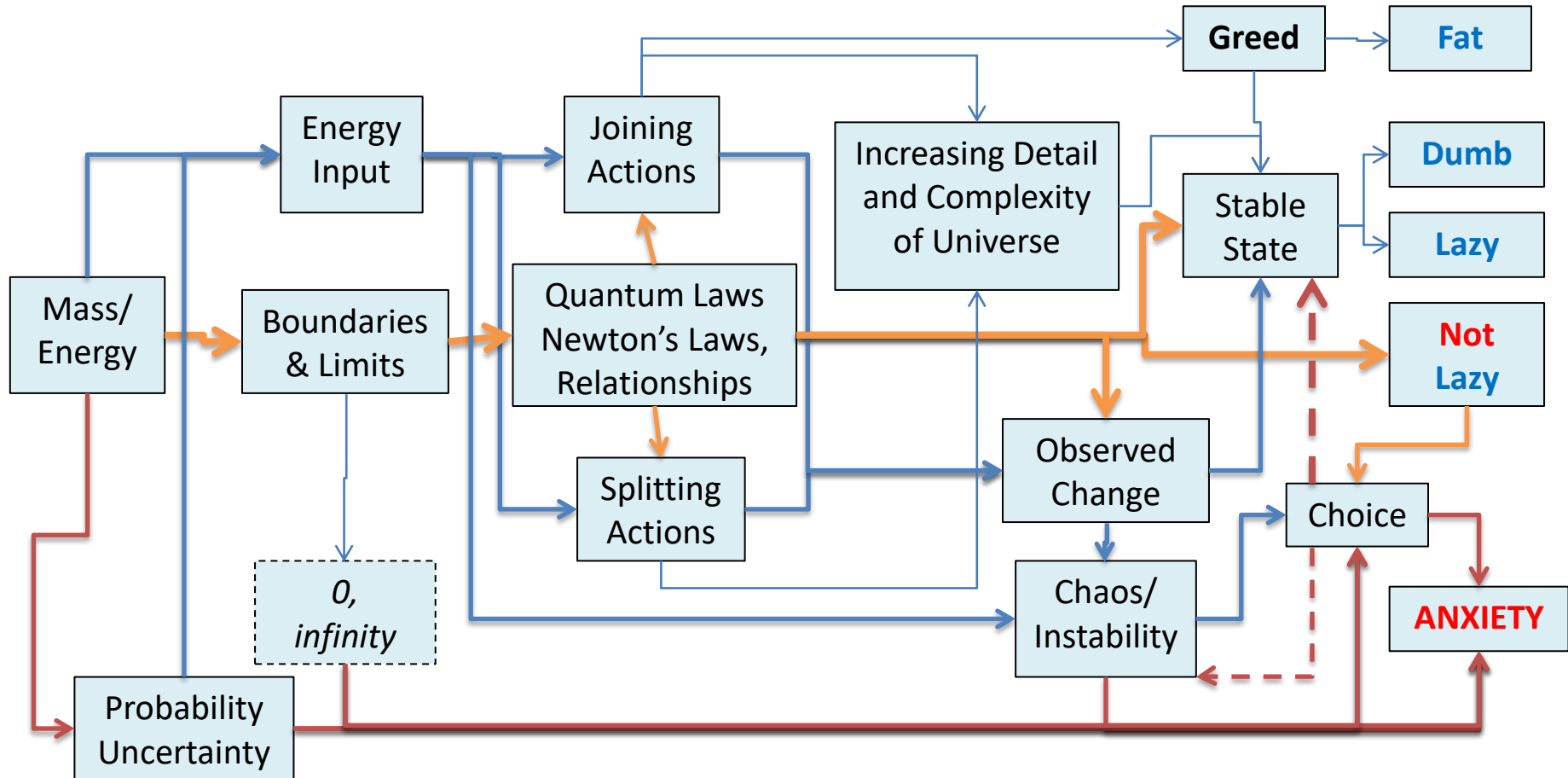
Related Observed and Modeled Concepts: Thinking, Cognitive Bias, Bell Curve, Pareto, Diminishing Returns, Homeostasis, Cumulative advantage, Margin of Safety, Type 1&2 errors, Enzyme, Catalyst, Alloying, Incentive , Denial, Self Preservation, Stereotype, Safety In Numbers, Stability, Resilience, Narrative, Stress, Change, Utility, Scarcity, Supply, Demand, Decay, Inertia, Entropy, Friction, Attraction, Repulsion, [Electron Shells](#), [Resonance](#)

“The Human Condition” Jeremy Griffith

<https://www.humancondition.com/jeremy-griffith/>

# Links to Fat Dumb and Lazy

- Anxiety avoidance, fear of uncertainty (choice/existence)



[https://en.wikipedia.org/wiki/Philosophy\\_of\\_Søren\\_Kierkegaard](https://en.wikipedia.org/wiki/Philosophy_of_Søren_Kierkegaard) Søren Kierkegaard

[Anxiety] is altogether different from fear and similar concepts that refer to something definite, whereas anxiety is freedom's actuality as the possibility of possibility.

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