# The Universal Model
## By Jesse Harman Rupe

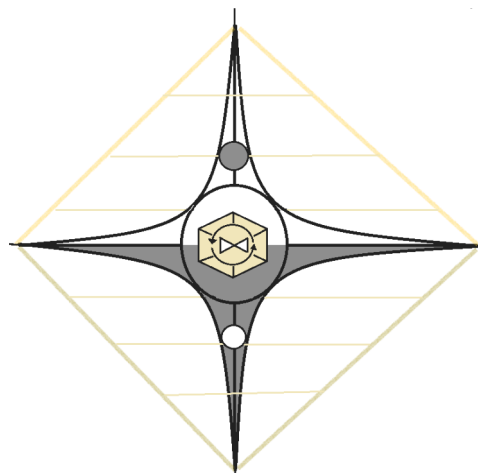Edition #1
February 2022

# Contents

# The Basics of the Universal Model

## By Jesse Harman Rupe

## February 21st, 2021

## Paper 1 of 7

The Universal Model (UM) is a system of philosophies, math, and concepts that organize all aspects of the universe into a single, complex pattern. To understand the UM, I split the ideas into six categories in this order: Time, Interactions, Aperture, Emergence, Life, and Consciousness. Then, the category of consciousness wraps back around to relate to time. As of now, the Universal Model is subject to change. These six categories may be too broad and must be split up or too specific and absorbed by other categories. In all likelihood, these six categories have no order. However, to lay a well-understood framework, the hexagonal structure of the model is a good starting reference for future iterations.

The categories of the UM do not stand alone. They work together to form other universe concepts: novelty, entropy, evolution, hierarchy, energy, chaos/order, truth, love, power, and more. When combined and studied, the six pillars of the UM make a comprehensive model of any system, subject, lifeform; you name it. If it exists, the Universal Model can and will model it.

Why would we need such a tool? We live in one singular universe with many deeply challenging scientific and philosophical questions. I believe the answers to these questions are all in context with each other. The Universal Model's ability to analyze anything will give the necessary context to solve these pressing challenges.

The UM started in search of an answer to one question: What is Consciousness? A simple phrase with the most complex answer. As I studied consciousness more, I learned the solution lay in the processes of anything. Using math, I came upon potential solutions. There were hypotheses related to time, chaos and order, politics and biology, and too many subjects that started seeming intertwined. I had dared to delve into the realm of metaphysics with solutions arising left and right. As time progressed, I realized I had created something much more: a model of how everything in the universe we inhabit functions: The Universal Model.

### Pillars of the UM

How did I develop the concepts to aim the UM's focus? I chose to focus on what we feel intrinsically in our lives. I had a hunch that evolution has primed our brains over millions of years to discern reality. Since our brains are excellent at categorizing and developing the world, I thought to start with the basics. There were two fundamental truths I came across. #1: I am conscious. #2: I feel a flow of time. If you are reading this consciously, then #1 applies to you. If by, a matter of fact, I am the only conscious mind and the universe is a simulation, consciousness still exists in some form as me. The second argument that time must exist is that if time were static, no thought could exist since the neurons cannot fire. Thus, since I am thinking, time exists in some form, whether in free will or determinism. Therefore, I started with time as the first pillar.

### Time

Time is the ruler of everything. Without time, we do not have interactions, movement, thoughts, anything. Without time, the universe would be a still image of infinite order, and nothing ever could happen. We can describe time as the fourth dimension that we continuously pass through as three-dimensional creatures. Surprisingly, time became way more elusive as I researched further and experimented with the math. Our conscious experiences and time intertwine in weird ways, where some types of minds may experience the world slower or faster. They are so intertwined that even an entirely still universe of "infinite order" may contain time flows perpendicularly to frozen dimensions of space. These statements may sound crazy and confusing, but thus is the nature of time. Time is explored more in *Consciousness & the Universal Model.*

### Interactions

The next most basic concept besides time is interactions. Interactions can happen on any scale, between any system, object, node, particle, organization, etc. Without interactions,

particles would not bounce off of each other, people would not talk, and gravity would not be possible(since gravity is a description of an interaction, a force).

Interactions are next in line categorically because time gives rise to interactions. If time were still, then nothing could interact. Thus, interactions are next in the hexagonal loop. Interactions describe time flow, how different objects interact throughout the timeline, and connect various time flows to each other. The concept of timelines, time trees, and evolution is described later. Chiefly, the other patterns of the UM cannot exist if their objects and systems cannot interact with each other. The idea is that something as basic as interactions are highly metaphysical. The deep, metaphysical level of the UM's design and field of study gives way to its usefulness as an analysis tool.

## Aperture

Aperture is the most contested category. The name is odd since it represents two intertwined concepts: chaos/order and energy. I chose the word Aperture as a homage to the game *Portal 2* and its use of apertures in cameras. If interactions describe time, then apertures describe interactions. An aperture in a camera focuses light to a specific size, constraining the amount of light captured and the energy captured. I like the word aperture because it can contain the concept of chaos/order and energy.

Just as an aperture restricts the flow of light, an aperture can restrict/define the flow & direction of an interaction. All interactions have a magnitude and energy to them. Thus, they also are more chaotic or orderly, given how much energy flows through them. The interactions of particles at the sun's core carry much more energy, are more chaotic, and cause the experienced time to flow differently than an alone particle in dead space. We can study the interactions between sun particles (the Aperture of two particles interacting) vs. the interaction of that lone particle in space and the faint gravity the particle feels.

Apertures have many variables. In the aperture, we can use concepts of pressure, heat, volume, etc., to measure interactions. In pure mathematics, an aperture is very similar to the definition of a "set." Sets in math are collections of elements. When we study emergence, we

will study how large volume apertures hold smaller apertures inside them, going deeper into the base interactions, emerging infinite possibilities.

Finally, an aperture does not have to be a 2d plane constraining a 3d line, as one might visualize light flowing through a hole. Instead, if time flows as the fourth dimension, then apertures are three dimensional. If we go by the mathematical definition of a set, then an aperture(taking on the definition of a set) can simply be any group of elements or objects. My home is an aperture, a city, an apple, or any object is an aperture grouping a set of more minor interactions. Any category can be an aperture describing a set of things. The grouping effect is the beginning of emergence.

### Emergence

As we continue to the next pillar of the UM, our apertures are beginning to look quite complex. They are emerging into chaotic and orderly patterns. The chaos and order in the aperture category interact to form the concepts within emergence. For example, a bit of order in a large swath of chaos is a novelty. There is poetry in how the sub-concepts of emergence emerge from aperture to make emergence. (Sorry for that tongue twister). These concepts include but are by no means limited to entropy, novelty, boundaries, hierarchies, and complexity, just to name a few.

Hierarchies describe the increasing complexity and magnitude of systems. Boundaries form when order prevents chaos from spreading. Novelty, as described earlier, is spurts of order within chaos. Entropy is the tendency of a system to be more chaotic because chaos is the most likely outcome of any system. Add in the structure that interactions give, using boundaries to move information, and emergence can create endless categories within itself.

There is an issue with my categories relating to emergence and Aperture. I am not sure where to fit in chaos/order, whether it belongs in the aperture category or simply a product of emergence. Either way, this predicament exposes the obvious: the universe does not strictly follow this six-category rule. However, the six categories are a good starting point to explain this massive hypothesis, whether true or not. We can reshuffle the ideas and revise the Universal model once the ideas presented are out in the wild and open to discussion.

## Life

Life is another intrinsic topic I believe is key to understanding the universe. According to the UM, life is any system that manages to continue its existence in some form. Thus, death is the ending of a perpetuating system.

This definition leaves many open interpretations for defining if something is living. Animals, plants, people, and cells are lifeforms since they are systems that continue their existence or reproduce to continue the species's existence. We can also all die. However, is an atom a lifeform then? The same physics runs atoms as humans. The neutrons and protons of an atom use the Strong nuclear force to hold the atom together. An atom can die once the neutrons and protons rip apart. So, why is an atomic lifeform different from a human as a lifeform? Are cells and humans on the same level of life?

The concept of emergence answers our question. No longer will something have to be organic to be considered a lifeform. Given our definition of life, even interactions are lifeforms as long as the interaction lasts longer than 0 seconds. An interaction's continuous nature keeps the transfer of data existing over time. The nature of continuousness is the fundamental component of perpetuation. Therefore, instead of defining humans as life and atoms as never alive, we must think of life in stages and as a spectrum. Just as water can go from solid to liquid to gas, can apertures/systems/objects go from stages of life? We can sort these stages roughly for the time being:

**Stage 0:**

Simple matter. Particles & matter that simply continue to exist are the building blocks of reproductive life, and this is stage 0. Anything with minimal complexity, not necessarily evolved to perpetuate existence, is considered a stage 0.

**Stage 1**:

Stage 1 can include cells, viruses, ideas, self-sufficient factories. Anything that simply reproduces is around stage 1. Stage 0s construct stage 1s. Even a tornado may be self-sustaining, and thus a low-end stage 1. Another definition for stage 1 is anything

that is a basic reproducer/perpetrator that underwent some form of the evolution process. An atom did not evolve. Thus it is stuck at stage 0.

**Stage 2**:

Stage 1s construct stage 2s. It consists of lesser conscious things. A stage 2 can be a tree, small ant, an organ, simple company, or many other combinations of stage 1s. When multiple-stage 1s combine with differentiating jobs, they often transition into stage 2.

**Stage 3:**

Stage 3's feature is a highly increased level of consciousness with interacting stage 2s. The organs/stage 2 parts form a higher stage being. A dog, ant colony, human, very advanced computer ai, dolphin; all can be considered a stage 3. In the case of just a brain, it may seem like an artificial intelligence brain is just stage 1's put together, but if artificial intelligence has many intricate systems, like visual processing, linguistics, creativity, then it is made of stage 2s. Our vision forms from stage 2 level ideas even in mental processing. These ideas combine so intricately that we experience a stage 3 consciousness.

**Stage 4:**

Stage 4s are highly relevant to our future. Animals, people, and technology work together to form stage 4 lifeforms. Our civilization is a grand stage 4. A species is a very loose stage 4, maybe. Any company is stage 4 since it comprises stage 3 humans and can live, die, evolve, and perform other analogous biological functions. Countries and religions are also stage 4s. By stage 4, the idea of concrete stages dissolves and becomes a spectrum of complexities and various forms of consciousness.

**Stage 5**:

Religions heavily apply in this stage. Stage 5 may consist of the whole universe itself. I am not sure how this would manifest besides combining all stage 4s. Religious freedom is heavily supported in this stage since we cannot perceive stage 5s easily. Perhaps only stage 4s can grasp the grander scope of a stage 5. A god may be considered stage 5. Who knows?

In reality, life is not subject to just stages. It is a continuous transition. However, once we can map estimated stages to rough equations, we can create equations using concepts from emergence to calculate all lifeform's complexity, consciousness, and other essential properties. Imagine if forests were as alive as a human mind, but we could not know until we knew the exact math behind our minds to understand theirs. That is why I decided to start with stages. Understanding the precise stage of life every object and system is vital to humanity being stewards of the Earth.

Also, different stage types will still be a helpful concept given the diverse nature of lifeforms. Just as our mind can go from sleep, to awake, to stimulated (by drugs), so can a group of water molecules go from ice to water to vapor. In the end, no idea is off the table.

## Consciousness

Under the Universal Model, the entire universe is conscious on some level. Everything from an atom to a civilization experiences consciousness.  So, how can we prove everything is conscious?

First off, this category started my interest in a universal model. If we explain everything in our world through math and science, why cannot consciousness use math and science? Thus, all the previous five categories combine to form the math behind consciousness. We must also define consciousness for the scope of these papers. Consciousness is the feeling of existence and mental experience of the world. It is not only defined as a high amount of self-awareness.

A simple starting rule is that consciousness is proportional to the stage of the lifeform. A complex, stage 3 life form such as a human is highly conscious. Meanwhile, while still alive, a mouse has a less complex brain and likely a less complex experience of the world. We will use a basic pattern to prove that everything is conscious. Is a creature half as complex as a mouse conscious if a mouse is conscious? Philosophy has often asked at what point does an organism cease being conscious?

The framing of this question sets a terrible precedent. We cannot think of the world as conscious and not conscious. Instead, the complexity of consciousness lies in a continuum. A continuum is the most common measurement form in the universe, from temperature to time.

An atom is billions of times less conscious than a human but still lies on the continuum of consciousness. A quick thought experiment can lead us toward proof. If I remove one neuron from my mind, I will feel almost no different. Repeat this process 1,000 times, and my world experience will be a small percent less complex. If we repeat this until my brain is a few neurons, I may only experience one pixel of light. However, I will still be experiencing the universe.

Going towards simpler minds leads us to cells and matter. If we describe consciousness as a repetitive pattern or a loop of thought, then a system of 2 interactions going back and forth can be considered conscious. Each interaction being affected by each other forms the most basic sentience. Thus, every interaction is conscious on some level.

Even material matter is just a set of interactions, an aperture, where the material experience of a particle occurs whenever an interaction occurs. We can tell consciousness is topological, too. Topology is a form of geometric study where objects can morph but keep their properties the same. Thus, a mind can take many shapes. Instead of just feeling our mind's interior thoughts, we feel our whole bodies as a shape of senses. A human's topology has a dense mind with thin tendrils of neurons in our limbs. Meanwhile, an octopus has a constant density of neurons, creating a brain in the shape of the animal. The sensory experience forms the shapes of the senses it inhabits. Overall, consciousness is present in everything, from the edge of an atom to the brain of an octopus. According to the Universal Model, the entire universe is alive.

### UM Study Example: Consciousness and Time

Arguably one of the most important combinations of categories is the link between consciousness and time. The categories loop back in on each other, completing the hexagonal ring of the core pillars. Consciousness, material existence, and time are directly related. As of now, I call this the TCM Argument: Time-Conscious-Matter argument. Conscious speed determines time's experienced speed and vice versa. If our neurons fire twice as fast, then time slows to half speed, and if we compute events slower, time runs faster. This pattern is an inverse proportion.

Ts = Neuron's Interaction Speed

Cs = Speed of Conscious Experience

Ns = 1 ÷ Cs    Cs = 1 ÷ Ns    Ns × Cs = 1

We can graph these relations and many more similar equations to turn consciousness into a quantifiable science.

Now we can hypothesize different scenarios. We assume that all interactions are conscious on some level. So, what happens when the speed of neurons becomes infinitely fast. Using inverse proportionality, we can estimate what will happen. If Ts approaches infinity, then the conscious experience of the universe approaches 0, or a complete standstill. Thus, if our neurons fire infinitely fast, then all of the experienced time freezes for us, which makes sense. Now we can do the opposite. If our neurons slow to 0, infinitely slow, the universe will go by infinitely fast. Fun fact, this is how photons experience the universe due to Einstein's General Relativity.

Now comes the matter section of the argument. The most basic form of matter is a particle. We can argue how waves fit into the equation, but that discussion is another day with the experts. In the meantime, we can use philosophical questions to answer how particles and matter have material properties. A common philosophical question is: what causes the material existence of matter? Why does the universe have matter in the first place? According to the model, the physical matter arises from interactions. If a tree falls in the woods and no one hears it, did it fall at all? Yes, of course, it did since there is an entire forest interacting relative to and with the tree. However, a particle moving through space, never interacting with another particle, will experience no change in its existence. Since there is no interactive change, it will not experience any conscious change. To the particle, the universe is constant. It is similar to air and wind against human skin. We do not feel the presence of air when it is still, but when air decides to slam against our body, we feel the effect of wind. This logic leads us to the hypothesis that consciousness only arises when two things interact. Furthermore, that interaction must be continuous and take time since an infinitely fast interaction will cause 0 conscious experience. More proof for this elementary explanation is in the following paper, *Consciousness & the UM*.

An example of more curious patterns to study in the future is consciousness related to gravity. Since gravity can warp the speed of time, and consciousness defines the speed of experienced time, then maybe the two are related through complexity or amount of matter. These possibilities are hypothetical, though, so we will discuss this later. This discussion on consciousness barely scratches the surface. We only described consciousness concerning time and interactions. Later, we will discuss how apertures define the location and topology of consciousness. Emergence will define the complexity and type of consciousness. Then, lifeforms define consciousness timelines and act as fuel for continuing consciousness. Every category interacts with one or more other categories in exciting ways, revealing new ways to view the universe and uncovering beautiful truths that we can use to better our lives and better the universe.

### Faults & Conclusion

There are likely many faults with the hypothesis in my essays, concepts soon to be revealed, and assumptions made. However, we can use the ideas in these papers to create a springboard for furniture discussion and discovery.

One sizable potential fault is the disorganization of the main six categories. The categories could be wrong. Two categories may need merging, a category may need separating, or the idea of categories is generally wrong. As stated earlier, the likely organization of the patterns of the universe follows no categories and uses continuums. The categories of the model flow seemingly into the next, just like a continuum. Just as Life complexity ties into emergence, it is also tied to time, interactions, and every other concept of the UM. All concepts of the universal model come together to form our universe. Heck, other universes may even use other Universal Models. Concepts such as interactions or consciousness may be nonexistent in ways we cannot comprehend. That is one reason why we must fully map out our universe.

Luckily, we have already studied most of the concepts I describe in this paper. The most scientific study of how things interact is more commonly known as physics. The study of how people interact: sociology. How neurons interact: psychology. The study of lifeforms: biology. The study of consciousness: religion and psychology.

To reiterate, the UM is a metaphysics theory with six core pillars that act with circular logic. The model has much more development than the six concepts listed here. In later papers, we will study the developmental evolution of the UM, hypothesis of consciousness, real-world applications, future-world applications, and the impact on society of the UM. Always keep in mind that we live in one universe with a set of rules. We experience a conscious reality, which intertwines with everything around us. If we are indeed to get to the true meaning of the Universe, then we must organize our theories under one ever-changing umbrella. That is the purpose of the UM. I hope you found this information helpful. Thanks for reading!

Feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

## The Development of the Universal Model

## By Jesse Harman Rupe

## February 21st, 2022

## Paper 2 of 7

The Universal Model(UM) is my theory of everything. The UM consists of six main pillars: time, interactions, aperture(chaos/order), emergence, life, and consciousness. These concepts are circular, building off the previous in an endless loop where consciousness is connected back to time.

I love robots, laboratories, building towers, and trains, especially as a kid. Little Jesse, and current jesse, has always been a pretty nerdy person. I would watch the train track toys I built get bigger and better. Then around those, I would build towers interlaced with complexity. Later in life, in the third grade, I discovered the holy grail of games for me: Portal 2 by Valve. In the game, there was a grand factory with self-building robots and zany robotic characters that either wanted to kill you, help you, betray you and so forth. One premise of the game was how the founder of Aperture Science - an ingame fictional company - wanted to put his brain into a computer. The idea of computer brains kicked off my interest in consciousness.

### Earliest UM Development (8 to 10 years old) - 2013/2015

When I was around eight to ten years old, I became obsessed with Portal 2, along with Minecraft by Mojang. By age ten, I was decently scared of death and pondered how one might transfer their consciousness to a computer. Then, maybe I could do the same and cheat the gods one day. In Portal 2, Cave Johnson's brain (Aperture's founder) had planned to copy his brain onto a record disk. I realized an issue with this; his brain copy on the disk is not a continuation of his brain. If I were to code a replica of myself onto the computer, but I am still thinking and typing on the keyboard, essentially just making a clone. A cloned mind is contrary to my goal of moving **my** mind into the computer. The solution ten-year-old me came up with was quite elegant and is, to this day, my proudest discovery.

My solution was not to code or copy a whole brain at once. Instead, I had learned/realized early on that the atoms that formed our neurons are constantly changing. Our neurons are all defined, but the oxygen, carbon, and other atoms passing through them are not. The lipids, organelles, and other parts often change over time. Even our damaged DNA is automatically corrected. Ten-year-old me put this in a more straightforward sense: if the atoms can change, but the neurons keep me fully conscious, what if we change one neuron at a time. If we were to replace one biological neuron in our brain with one wired-up, electrical neuron, then we would never realize it. This electrical neuron could be a nanomachine or coded into a computer and connected to the brain somehow. Therefore, after changing one neuron, or neural section, we could change another, another, and another. Over some time, every neuron in my mind would become artificial, and I would not even realize I had transferred my mind. This process still requires making full neural maps, but no clone appears.

There are no clones for a few reasons. The first is that my biology has been shifted slowly into the computer, instead of copied. Then, what about the leftover biological matter after the transfer. Well, when the atoms leave our neurons and return to mother nature through the bloodstream and waste, they do not carry our thinking mind. Therefore, as a neuron is removed and thrown away, it does not carry my mind with it. In reality, with modular analysis, we will find it carries a very, very minute amount, but that is for further research. In the meantime, my 5th-grade self had taken the first step towards cheating death.

## My Consciousness Obsession

This initial foray shows one of my lifelong obsessions: consciousness. I deeply desire to know how it works, why it exists, and the extent of consciousness in all matter. My initial cheating of death from a video game has evolved into a grand project: the Universal Model. As of now, I do not know what to call it besides the Universal Model. The UM is precisely such: a model that can be applied to anything and everything, explaining all aspects of reality. It has six main pillars as of right now, always up to changing: time, interactions, aperture (chaos/order), emergence, life, and consciousness. My ten-year-old ideas formed the backbone of the future

consciousness pillar of the model. Maybe we can call the six concepts pillars, foundations, the fundamentals, the constructs, the infinity stones, or any other name that sounds cool.

Many concepts are borderline fundamentals, such as hierarchies, chaos & order, energy, and much more. Maybe there are six pillars, 75 pillars, or 0 pillars; who knows. As of now, though, and as I explain how I put together the puzzle pieces, the current fundamentals will make a decent amount of sense. The goal of this Universal Model is to be modular too, willing to change over time just as science does, able to adapt to religions, politics, biology, math, and anything else. It is vital for us, including me, to keep an open mind to changes and faults with logic. I have a vision where the model evolves into a grand blockchain level effort, where millions of people submit ideas, debate them, vote on them, and apply the UM as they please, kind of like a grand unified scientific system. For now, though, back to the story.

### Middle School (11-14 years old) - 2015/2018

We have our first foundation laid out: consciousness. It would be a few years before the next pillar arose: chaos/order, soon to be renamed Aperture for reasons I will describe later. I had been watching Jordan Peterson throughout my 7th-grade year. Love him or hate him, there are valuable lessons to be learned from Dr. Peterson.

I would often listen to Jordan Peterson's lectures about religion, responsibility, and twentieth-century history. The most common lesson he would describe is chaos and order. Every aspect of our lives, the world, religion, and more deal with chaos and order in one way or another. In life, he advocated for bringing order to our hectic lives. To do this, one would start with cleaning their room, reorganizing their surroundings, and mending relationships. We also needed doses of chaos/novelty to foster growth and to not stagnate in our personal lives. Too much order was bland and led to tyranny. He described the political balance of conservative order and progressive chaos (not a negative connotation). He showed how too much tyranny in Communist states stifled the human mind and caused millions of deaths. Chaos and order were also widespread in every world religion. Different deities or figures represent different concepts within the universal model from many religions, such as gods of chaos or life. Even the archetypal Hero's journey depicts starting in order, which is the exposition. Then the hero enters

chaos, the rising action to climax. Then finally, the hero returns to order, the falling action to resolution. Overall, I knew that chaos and order would play a role in the laws of the Universe.

He also planted the seeds for another pillar: interactions. I began to see how the world interacted with itself. In Dr. In Peterson's book, *Maps of Meaning*, many diagrams depict how different systems are related, including chaos, order, novelty, religious stories, and neuroscience. Often I doodled in my notepads the various forces of my life interacting, the weight they had against each other, and how math was involved with the interactions. Mapping the UM to my life helped me realize that the chaos and order of my life are similar to physics, with concepts like temperature and the interactions of particles. The course of discovering chaos/order and starting interactions took around two years through the end of middle school.

Today, chaos & order lie nestled in the pillar of Aperture. I changed the pillar's name to add a few other mathematical concepts into the chaos/order pillar. Since chaos and order lie within physics, too, I decided to add the concepts of thermodynamics to the mix. Thermodynamics (the science of heat) studies volume, pressure, temperature, and the number of particles in a system, to name a few. A hotter system is more chaotic and hectic. However, if we increase the size of the box without increasing pressure, the particles will have more space to move around, and the box will seem less hectic from a distance. I call this box the Aperture of the system. I chose Aperture since it is similar to the Aperture of a camera, changing size. I will elaborate later on how the concept of the aperture bridges interacted with emergence.

## Freshmen Year of High School (14 - 15 years old) - 2018/2019

Another year would pass until the next pillar would emerge into the model. In my first year of high school, we had a few weeks left in our biology class. Our teacher posed us the deeply controversial question of whether abortion was moral or not. I decided to create a mathematical system to answer the question. The dilemma on abortion was so confusing that I thought math could help, and it did. Two more pillars solidified this day: life & time.

I developed an argument that analyzed the level of consciousness of the fetus to determine the best compromise between development time and performing an abortion. I defined five stages of life to determine the development of a creature. Stage 0 is fundamental

matter, and stage 1 is cells/bacteria. Stage 2 is relatively unconscious multicellular organisms like a tree or an ant—stage 2s form stage 3s, ranging from mice to humans. Stage 3 could also consist of conscious, non-biological creatures like a self-aware artificial intelligence. Then, stage 3s organize into stage 4s, like a nation or a company. In later months, stages 4 and 5 came when I realized humans work together to form societies. Then stage 5 would be a placeholder for God in the case of various religions.

After the idea of life stages developed, I realized the importance of time to the Universe. Time was the "Ruler of Everything." Time determined the development of creatures, the flow of chaos and order, the experience of consciousness. Without time there would be nothing.

Finally, the increasing stages of life with complexity lead to a new category: hierarchies. Hierarchies applied to stacking stages: 1s form 2s, 2s from 3s, 3s form 4s, and 4s form 5s. Each stage required multiple of the previous stage, forming a pyramid. For a more in-depth explanation of the abortion arguments, see essay #4, *The UM as an Analysis Tool*. Overall, the abortion discussion created three new categories: time, hierarchies, and life.

### Sophomore Year of High School (15 - 16 years old) - 2019/2020

While I continued into my sophomore year of high school, music helped me settle on the fifth category, interactions. I discovered a wonderfully lyrical band called Tally Hall. Their lyrics were full of wacky concepts and beautiful stories. One song settled my opinion on time. This song was called "The Ruler of Everything" and describes the various ways in which time dominates our lives. Tally Hall even delved into concepts of chaos and order with their album "Good and Evil." As I listened to their tunes, I developed a sense of beauty attached to the UM. I called the sixth pillar of the model as such: Beauty. Thinking about the millions of interactions, thousands of unknown minds, and infinite potentials around me struck me in awe. I loved watching how thinking *interacted* around me. However, this new category's name did not sit well with me in the slightest. Beauty was such a subjective term; how could it fit the model? I asked myself what was beautiful. I drew out webs of interactions and symbols of connection. Then I realized the name of the category should change to Interactions.

Just as nothing exists without time, interactions were another fundamental law of reality. Everything interacted, from particles to entire civilizations. These interactions that I found so beautiful also connected a gap in the model.

At the time, I had connected Chaos/Order to Hierarchies. Hierarchies to life. Life to consciousness. And consciousness to time. However, time and chaos/order never really had a good connecting point. Interactions were the missing puzzle piece. Time was the backbone allowing things to interact. If everything freezes with no time, then nothing interacts. Then, chaos/order was a descriptor of interactions, energy, and size. The larger an area of interacting stuff, the more chaotic it was. Interactions also glued various UM concepts together, describing where concepts connected and why they connected. They connected because they interacted through various pipes of information. The idea of 6 categories flowing together also seemed to fit well. Various pairs would form, and other concepts would emerge from the hexagonal nature of the model.

**Side note:** Thank you, Tally Hall, for all the joy and revelations you guys have given me through your wonderful music.

## Exurb1a and *The Fifth Science* (16 years old) - January 2020

During this time, I began to expand the model beyond the six core pillars. I decided to use the model to analyze and improve my own life. I decided to analyze a book called *The Fifth Science* by Exurb1a. Exurb1a is a philosophical/scientific YouTuber who used comedy, existentialism, and futurism to tell various stories. He told 12 separate sci-fi stories that loosely combined to describe a grander narrative in his book. The stories were highly whimsical but provided insight into many varying scientific concepts. The stories spanned 100,000 years into the future. The stories captivated my mind and envigorated my endeavors.

Exurb1a's youtube videos served as inspiration for the model throughout my life. He also tackled the questions of consciousness on occasion, wondering if anyone would ever solve the puzzle. In this book, he pondered how the study of consciousness would affect human civilization during an epic saga across space and time. In his words, there were four sciences:

logic, physics, psychology, and sociology. The fifth science yet to be studied thoroughly in modern times was consciousness. That is why I chose to study this book with the model. I wanted to see if the model could apply to Exurb1a's questions and stories.

The Universal Model served as a perfect companion to Exurb1a's stories of consciousness and philosophy to make things short. His words created a few new subsects of the Universal Mode: Entropy, Novelty, Evolution, and Truth/Love/Power. In essay #4, *The UM as an Analysis Tool*, his book is studied more deeply.

Exurb1a's stories of humanity showed the civilization falling to entropy forces. Entropy is the tendency for a system to become chaotic. Novelty is blips of order in chaotic systems. Evolution derives from combining life and moments of novelty that randomly improve upon previous creatures' features. His story also showed the evolution of ideas, civilizations, and technology. Finally, Exurb1a used three concepts to describe what humans seek: Truth, Love, and Power. Truth showed itself as consciousness and time since seeking the truth is a conscious endeavor. Love showed itself as a combination of life and interactions. Then power showed itself as a combination of emergent hierarchies, chaos, and order.

Though the six pillars of the model apply to Truth, Love, and Power(TLP) fluidly, they served as good translations of the Universal Model into human desire. Though TLP was not the most scientific section of the Universal Model, it is an excellent tool for understanding the UM. More importantly, though, TLP with the UM can be used to analyze and improve one's own life. My awareness of these desires with a deep understanding of the Universe allows me to be successful in my engineering endeavors, personal fulfillment, and relationships with others. Overall, Exurb1a's book, *The Fifth Science*, and his other books/videos had a significant impact on the development of the Universal Model.

A name change did occur during this time. I changed the name of hierarchies to emergence after watching a Kursgesagt video on emergence. The category of hierarchy started to include concepts in novelty and entropy. However, these two concepts do not quite fit inside of the concept of hierarchies. However, novelty, hierarchies, and entropy emerge from chaos and order. Hierarchies embraced chaos and order to shuffle levels and organize things from hectic to orderly. Novelty was a property of spurts of order inside a chaotic system, and entropy

was order turning to chaos. Thus, I renamed the category emergence, as these ideas all centered on combining interactions, chaos, and order. Emergence also transitioned well into the life category, as life emerges to create endless loops from fundamental interactions.

## Junior and Senior Years (16-17 years old) - 2020/2022

In my junior year of high school, I focused on refining the ideas mentioned previously and engineering. In my junior year, I nailed down specific math on the shape of consciousness and its relationship to physics. Essay #3, *Consciousness and the UM,* provides an in-depth insight into the physics nature of consciousness. Thus, the development of the model continued in my senior year. During this time, I adjusted the names of some pillars and began writing down my ideas: Hence, these essays.

One category did change during this time: Chaos/Order. I had always needed a place to include energy in the Universal Model. The spectrum of chaos to order seemed to fit the varied nature of energy amounts. Thus, I combined Energy and Chaos/Order into one category: Apertures. An aperture in a camera funnels light in specific diameters. Thus, an aperture in the UM (Universal Model) funnels interactions and describes their states. Chaos, Order, and Energy are all descriptors of interactions that the Aperture category holds. Aperture measurements also help link the simple interaction definition of the interaction category to the complex nature of emergence. In multiple interactions that emerge, they usually have different properties that combine. The Aperture category allows us to describe these properties with science. The name Aperture is also a nod to the Portal 2 game (Thanks Portal).

In my junior and senior years, I started seeing the model in everything I did. I cannot disconnect the UM from how I see the world now. Every tree, piece of metal, computer, person, or anything I interacted with I could analyze with the UM. For example, I see the same shampoo bottle every day when I shower. The idea of a shampoo bottle lives in my head since I consistently use the idea in my memory. A stage 4 corporation made the bottle to sell to me. That corporation is a living creature surviving from my money which acts as food. The brand of shampoo bottle would never have been born if humans never had a use for it. Thus, the corporation and shampoo bottles are codependent organisms. The corporation is conscious of

this, too, using thousands of employees as its neurons, collecting sensory info through sales and study groups.

Furthermore, the brand of shampoo lives in millions of people's minds as a lifeform. It lived in my parents minds', and now that my parents had me, it lives in my mind. The idea of a shampoo bottle was procreated from my parents' minds to me, interacting and evolving. I could go on for a few more paragraphs just analyzing a shampoo bottle. This study of a single, everyday object exemplifies how deep the UM has infected my mind and its potential use for analyzing the universe. I see it as a living thing inside of my mind.

### Current Day (17 years old) - February 2022

So, where does the Universal Model stand today? During my senior year of high school (year of writing), I have decided to write down the current progress of the model. I have continued to increase the complexity of the ideas with the model. However, the ideas are growing so large that I risk over-complexity, falsehoods, and logical gaps. Thus, I plan on writing out all of my current notes in many papers. Then I will create a wiki on my website www.jhrinnovators.com about the Universal Model. This wiki's format will derive from the UM with its interactions, marking times of writing, courses of evolution with lifeforms, and even how to apply the model to one's own life. While this happens, I hope to bring my ideas to the public and work collaboratively. A universal theory cannot be universal without the input of everyone in the Universe. Longterm, I will create entire organizations dedicated to developing the model, applying it, and making the development process more democratic with all people involved. Who knows where the model will be in 10 years. As for now, I will continue writing, and I hope that you continue reading.  Feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

# Consciousness & the Universal Model

## By Jesse Harman Rupe

## February 21st, 2022

## Paper 3 of 7

The development of the Universal Model began with questions based on consciousness. These questions stemmed from how the self-aware artificial intelligence (AI) of Portal 2 functioned and from the Ship of Theseus problem. The AIs in Portal 2 were self-aware consciousnesses, and I was curious how the science behind transferring one's mind into a computer worked. Moreover, these questions lead me to a Greek philosophy question about a ship whose constituent parts change over time. (More depth on the Ship of Theseus in Paper 5). Over the years, I have created a few intriguing possibilities into the nature of consciousness. These ideas deal with base interactions, time perception, the math behind gravity, and continuous math. Consciousness arises from continuous interactions and infinities, leading to deeper "wells" where the more complexity and aligned interactions, the more potential for consciousness. Although our brains function much more intricately than just complex interactions, the ideas presented here are still a good start. First, we must turn consciousness into a quantifiable subject, just like most other studies in science.

### Graphing Consciousness

To turn consciousness into a mathematical subject, we must graph the locations of consciousness. Since every piece of matter and interaction in the universe is conscious, we can create 3D graphs and simple models to represent consciousness. Graphing minds is similar to matter and gravity. If we graph the amount of gravity in the universe, there are dips where planets, stars, and black holes are. Galaxies form large swaths of gravitational pull, and the smallest particles have gravity. We can use many variables to graph consciousness similarly. The figure below shows that a more massive object bends space more—the smaller an object, then the shallower bend. A steeper bend means more acceleration towards the bottom of the dip.

We can similarly graph consciousness. The more complex a consciousness, then the deeper curve of the well it will have.

First, we will start with a simple variable called conscious complexity. We can study multiple states of consciousness; however, we will start with the complexity of a mind for now. The more complex an



aperture is, the deeper curvature will occur. Remember, an aperture is a study of interaction, so in this case, we are considering a consciousness as one extensive, self-looping interaction to study. In this gravity metaphor, the complexity of consciousness acts similar to water. Water will flow into deeper wells, akin to consciousness flowing into deeper experiences of the universe. There is more water in a deep well than a shallow well. In this metaphor, a person's conscious well is very deep while a single cell has a slight, shallow dip. Thus, complexity and other variables may bend the conscious plane of the universe, just as gravity bends space-time.

This model of consciousness solves a long-standing question. Why is my consciousness stuck in my body/head? Why can't I feel the thoughts of a dog, and why am I not connected mentally to the clothes I wear. The answer is inherent: the neurons of our minds do not connect to other objects. The location of minds brings topology into consciousness. Topology studies geometric properties when objects experience continuous deformations such as stretching, twisting, crumpling, and bending. A continuous deformation happens without creating holes, tearing, gluing, or passing the object through itself.

We can use topology and the graphs created to study the location of consciousness and the emergence of complex minds. In the metaphor, water in a deep well cannot flow upwards into the water of another well. In our figure from before, water stuck in the yellow curve cannot spontaneously flow into the orange dip. However, consciousness wells may merge by adding complex interactions between two wells. If complex interactions occur between the orange and yellow dips, then a deep channel will form between the two curvature areas. One significant dip will form in time, merging the yellow and orange dips into one conscious experience.
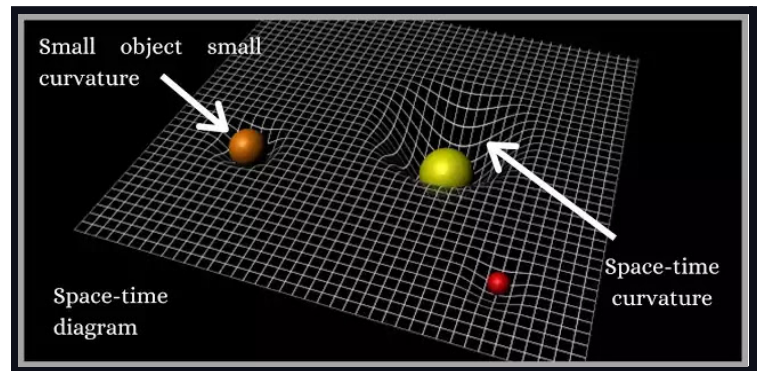
On the flipside, by creating barriers between interactions, we can lessen the depth of wells and lessen the conscious experience. So, how do we know the depth of wells? For now, we can return to our gravity example. Each interaction holds a complexity weight that corresponds with the entities involved. (Such as two particles colliding or a wire sending electricity.) When more interactions happen (increasing complexity), their local well deepens.

## Human consciousness concerning the body

The wells also depend on the time scale we are studying. If we study 30 seconds between a human mind and a forest of millions of trees, then the forest's conscious depth will not be much, and the human's well will be immense. The human mind is deeper because transporting resources through the roots of the trees is slow. Meanwhile, human neurons are firing many times per second. However, if we study 30 days, then the complexity of the forest deepens along with the humans. The forest's movement of resources will be more significant in number, creating a complexity that may compete with 30 seconds of human thought. However, thirty days of thought at once is too much information to process for humans. So, the human mind runs at our current speed, and the forest mind runs slower but with an equally conscious experience. Thus, we can see how a tree experiences slower but comparable to a human mind using conscious wells.

With topology, we can study the inner workings of minds. In a human, we can graph the depth of various sections of the mind and the body using the varied complexity of our senses. Our vision dominates with sound, and then comes touch, taste, and smell. According to Science News for Students, our eyes have 125 million rods and 6 million cones. Rods give us peripheral/low light vision, and cones give us color vision.

Meanwhile, according to the Australian Academy of Science, we only have around 2,000 to 8,000 taste buds. When we see, we experience millions of pixel-like inputs at once. However, our bread experience is mathematically much less complex than our casual vision. Our vision's complexity increases due to the size of our visual cortex, which processes millions of inputs. Thus, the conscious wells of our eyes and visual cortex are much deeper than that of our tongue.

Concrete scientific studies are still needed to study the true complexity of human body parts and forests—however, these broad examples show how we can develop the math behind the Universal Model. Just as gravity uses the distance between objects to determine the depth of the gravity well, we can use variables like Aperture size and energy to determine the depth of conscious wells.

### The Consciousness of Basic Matter

We can solve another important question by using the topology and geometry of the conscious wells when concerning mental structures. If a single bacteria has a level of consciousness, would a neuron in our mind keep that level of consciousness? Similarly, if an atom has a level of consciousness, does it retain that consciousness separate from a cell? The answer is yes! However, multiple levels of consciousness can inhabit the same general area but do not share an exact location in space (as far as I know). So then, how is the answer yes?

Well, let us go back to gravity. Each atom has gravity and pulls on other atoms while sharing the planet's gravity. However, the planet's gravity is not one continuous dip. In the equation for gravity, the strength of gravity decreases with the distance between objects squared. Thus, at the very center of a particle where the distance approaches 0, the particle gains more pull than an entire planet (ignoring other forces). Thus, in the gravity dip of the planet, each particle has a more substantial dip at the particle center than the pull of the whole planet. An example is shown here between a large object and a small object. The large object's dip pulls in more expansive space around it; however, the smaller object retains a minor dip.
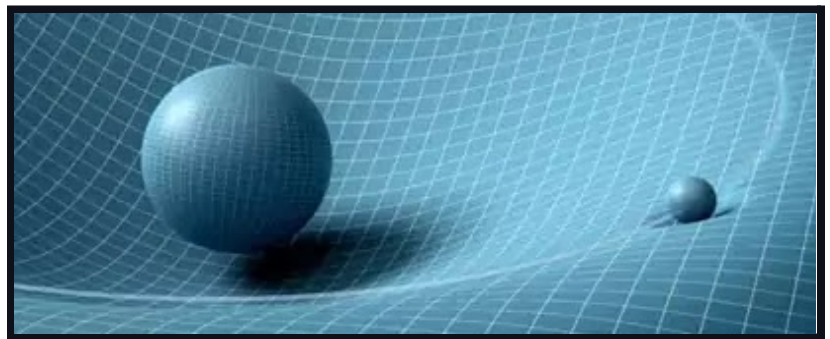
Now let us ponder a sea of particles and interactions forming a more complex & deep consciousness well. Each particle's aperture of interactions keeps its dip, as shown before. However, anywhere interactions emerge patterns, a conscious well that is deeper than a single

particle forms. Each particle retains a slight dip in the water metaphor, while more immense canyons occur between the particles, representing the deeper, more complex apertures occurring from emergence. The more significant conscious well forms around the already existing interactions and not directly on existing interactions. If we were talking about neurons, each neuron has its dip. Then, a more profound, porous-looking conscious dip forms in the spaces between neurons where they connect, creating our brain.

The canyons between neurons hold vastly more water than the puddles in our water analogy, but the canyons are still separate from the puddles of the neurons. The pull of the puddles combines to form the pull of the canyon. Thus, particles of a cell hold onto their experience, and the cell gains its own experience. Then, the neuron keeps its consciousness well while our human brain emerges into a broader and deeper well. Overall, there is no violation by different consciousnesses inhabiting the same space. Then this applies to the brain too. The conscious well of the whole mind is porous, like a sponge with billions of tiny holes where cells lie. As a human mind, we inhabit the spaces between neurons where the axons and dendrites meet. Our thoughts form from interacting neurons, not interacting atoms. (Axons and dendrites transmit neurological information). One neuron's interaction creates long chains that occur in the space between neurons.

We must keep in mind that these ideas are heavily subject to change. The most important takeaway is that consciousness acts like gravity wells. Many other ideas like the location of interactions and exact topologies of the mind are yet to be complete. Let us name the various topics described here for simplicity to finish this section.

We can call conscious wells, conscious gravity, or conscious dips: conscious fields. The naming is similar to gravity fields. The measurement of consciousness will be called Conscioumetrics.


### Time cycle consciousness

To continue the study of consciousness, we must delve into a mind's relationship with time. We will study the perception of time with the brain's inner workings. With our new tool of conscioumetrics, we can slow down the brain to see at what points a mind is conscious. Since all

neuron interactions take time, the brain may not be conscious at very short intervals in time. Alternatively, as we may see, the neurons create loops where the conscious fields rotate and seem to orbit, synchronizing to form deeper fields. This study gets to be very, very weird.

Often when someone describes consciousness, they use the word self-awareness. This phrasing is logical since a large part of our experience is self-awareness. Self-awareness involves our cognitive systems having memories of the past and interacting with those memories to create future actions. When graphed, the neurons in these systems form loops and cycles. Some scientists often refer to consciousness as a system of processes that loop back on themselves. These loops are essential to understanding the depth of a conscious field.

To understand the trillions of looping systems inside minds as complex as humans, we must use the UM to define every aspect of the loops, from interactions to life.

Time defines the length of the loop's cycles. Interactions form the linkage in the long chain of a loop. Aperture defines the types of interactions in the loops, loop size, energy, and the areas of chaos and order in a loop. Emergence defines how loops that combine form hierarchies, the boundaries of loops, and the entropy and novelty of new or old loops. Life defines the self-sufficient nature of a loop. Does the loop require outside stimulus to live, or can it continue forever? How much does the loop change over time? Do the loops evolve? We can apply many more biological features to a loop since the loop is technically a living thing. Combining life and emergence, we can define memory, lengths of memories with time, how the emergence of multiple loops form wider apertures, and how these factors combine to impact the final conscious field. Variables and units involved in studying the loops of a conscious system are critical to conscioumetrics.

Finally, when we combine the five pillars of the model to analyze conscious fields, we have used the last five categories of the UM to measure the sixth category: consciousness. The sixth category represents the combination of all concepts within the UM to analyze the complexity and real-life experience of the UM, ultimately creating the most meta-conscious process available.

**Time cycles alignment**

For now, we will call the time loops: recursions. In math, a recursion (recursive loop) is when a rule is when an equation or system involves a repeating rule, such as multiplying over and over. Thus, when a recursion starts, the information is transmitted through the loop, altered somehow or not, and repeated back to the starting position. This information can be electrical, forceful, mental, anything that can interact. An electrical recursive loop is simply an electrical circuit. A Newton's cradle is a loop, repeating information back to the start with force. A recursive friction rule causes the force to diminish with time in a Newton's cradle. Thus, in time, this loop will stop moving and eventually die.

We can combine multiple recursions to form more complex systems using the principles of emergence. To study this, we will create a simple universe with two recursions, each transmitting a different type of information. One recursion uses blue information, and the other uses red. When information passes from one node to the next, the transfer will take 1 second and be continuous. Information will stay in a node for 0.5 seconds and then move during the next 0.5 seconds. In the figure below, the information is not stored within an interaction during the move. Information will only lie within the nodes. The drawing of the interaction simply represents the relationship between two nodes. The importance of discrete and continuous interactions to consciousness will be discussed later in the paper. Each node can only hold one type of information, so when blue and red info combines, it must form purple to store both inputs. The time will start at 0 seconds, and the starting position of information will be as shown below:
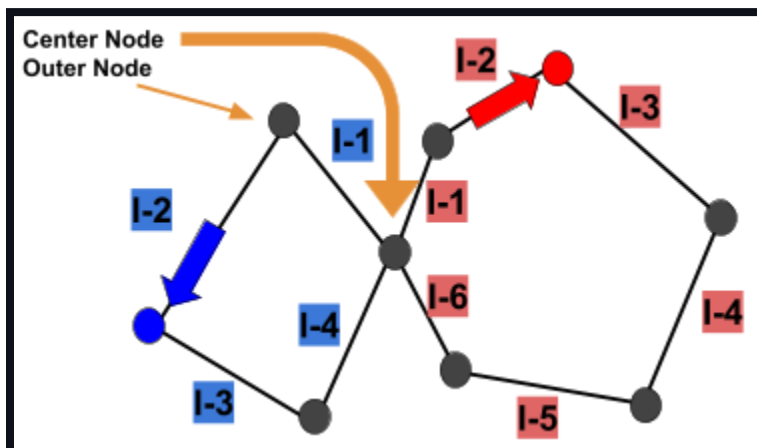
We will measure the complexity of a node's conscious field by the number of operations acting upon a node. The first operation we encounter is moving information from one node to another. When a node experiences no transfer operation, its complexity is 0 since nothing happens over time. Since the universe is processing no change, there is no lived conscious experience; the universe freezes for that node. For most nodes in this universe, their complexity only increases when information moves into or out of a node. The node's complexity increases to a value of one during a transfer operation of information in or out.

Since a transfer operation occurs between two nodes but over one interaction, the nodes share that conscious field of interaction. If a node was alone and simply shedding away information, like the shedding of heat, then the conscious field occurs only at that node. The center node can have a complexity of up to two since both blue and red information may come in. The center node must deal with two interactions to create purple information. The combination interaction acts as a second operation upon the node. Now, when the purple information leaves the central node, the outcoming behavior depends on the nature of red and blue I-1. For now, though, we will not worry about that.

This long string of events aims to show how two recursions can emerge as a more complex experience of reality in one space. When two streams of information collide at the center, they create a deeper information well because the two interactions form a second operation upon the node. The node must combine red and blue info while taking in the purple information. This combination only happens when the two streams of information align. I used to call this time-cycle alignment, but we can use recursion alignment. We can see that the alignment creates purple when studying the central node's structure.

Note how there is a new section in between I-4 and I-6. This area is where the experience of higher complexity lies, in between the interaction of I-4 and I-6. In reality, the drawn interactions have 0 distance. The gradient area shown has no actual 2D spatial area, yet still lies between the three nodes, in a sense. Thus, the primary combinatorial interaction happens on the purple
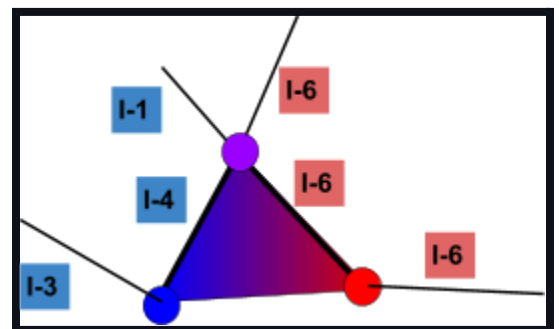
node. In this 2D representation, we must still perform the two operations in the same center node. The center node's experience breaks into 3D space to perform two operations, allotting both operations separate locations in the universe to occur.

The info transfer operation experiences the universe as any other info transfer operation, lying on the same 2D plane as the others. However, the combination operation has been pushed deeper into 3D space, representing the more profound feeling of the central neuron. In literal terms, part of the center node is on another plane of existence above the ordinary existence of this micro-universe. This increase in dimensions may also come from the fact that blue information lies on one number line dimension of analysis. Then, red info lies on another number line dimension of analysis. As seen in this image, a graph combining blue and red information needs two dimensions to describe the possible combinations of the two colors. Otherwise, there is a complexity value of one needed to describe singular-color info in a node.
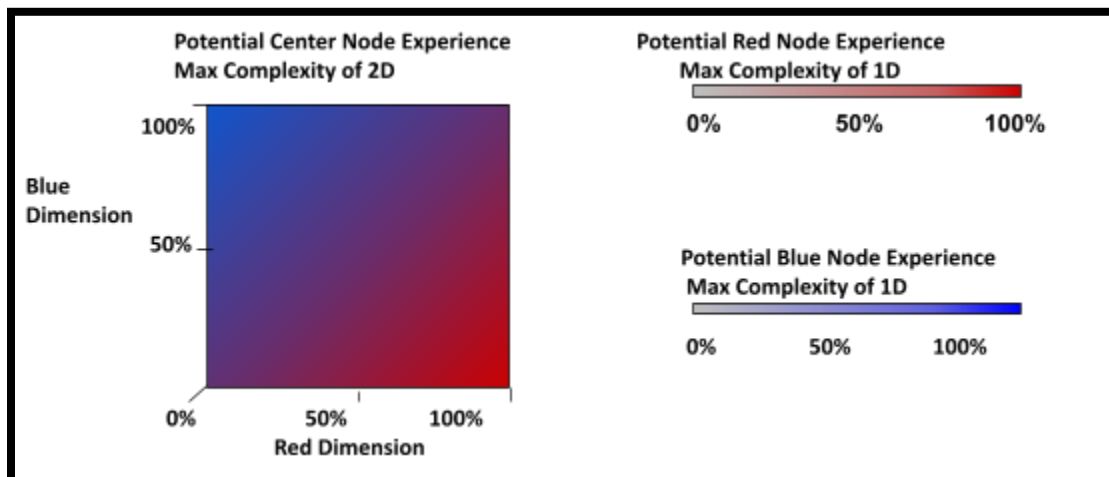


This ties into the porous nature of minds described earlier. I-4 and I-6 hold their independent experience, and the combination operation is a new, more complicated experience that emerges. This new region will not last forever, as the blue recursion and red recursion must align at the right time to form this increased complexity. After this interaction happens, blue and red I-1 may turn purple or extract the blue and red based on the universe's rules we just created. I plan on making animations and mathematical proofs in the future to show what I am trying to say since this explanation is very complicated and relies heavily on visual analysis.

If all of the remaining interactions are purple forever, this is an example of entropy, a subset of the emergence category that we are exploring. Early in the system, two primary colors

existed. However, when they combined, the system degraded into an average of the two states. This purple state has lower potential energy because it cannot separate blue and red without an outside force. However, if the mini-universe we created ran on different rules, then novelty may re-emerge. If red and blue I-1 can spontaneously extract their respective colors, the system returns to its previous state.

If we need to find where apertures fit in, we can look at our study variables. We have the second category of interactions mapped onto our images. Then, to study those interactions, we used complexity to compare an interaction's magnitude against others. The purple combination reaction holds more information than the information transfer interaction. We can think of the aperture as a cross-section of an interaction in the map. When no information flows, the cross-section is a simple point. When information transfers, the cross-section increases to an area of 1, flowing like a wave. Then, when the purple combination occurs, the cross-section increases to an area of 2. The cross-section represents the measurement of the node's conscious field or the complexity of its perceived reality. In 3D, the aperture is the pipe-like structure of movement and energy in a system. Keep in mind that the cross-section area does not represent the spatial volume of the interaction but instead the number of dimensions the interaction has. For our human minds that process millions of pixels at once and ideas of insane complexity, our experienced reality is billions of dimensions deep under the rules of this model universe we created. Each pixel of our vision alone represents a variable with its dimension for the possible colors the pixel can be.

In the circulatory system, new life forms birth from emergence. The purple color now attempts to stay alive. For 0.5 seconds, the purple color experiences a complexity of 2. However, the purple spreads out in time and becomes two lifeforms experiencing a complexity of 1, as it is now a color being transferred from node to node, just like blue and red. The recursions are classified as lifeforms because a lifeform is any system attempting to stay alive. These loops send information back into themselves to continue living. The true-life form itself is the information within the recursion, and the body is the structure of the loops. The new purple color also acts as a memory of the two past colors. However, the amount of time blue and red existed may never be known. We may also never know if two shades of blue combined first and

then combined with a shade of red. With time, the memory degrades since the information compresses from two colors to one.

## Consciousness lies in continuous time (maybe)

The interaction study leads us to analyze consciousness regarding continuous and discrete interactions. Continuous interactions are when the values of the interaction can take on any value within a finite or infinite interval. Meanwhile, a discrete interaction happens when each value is separate.

As seen below, the critical difference is between continuous and discrete-time. If the time an interaction takes is discrete, then there is a length of time between the two nodes where no node or interaction experiences any change. If our brains were to freeze for 1 second and then start up right where it left off, we would skip time 1 second into the future and experience no change. The same is true when time stops for a discrete interaction. Thus, we experience a discrete interaction without time, thinking, and interaction.

Meanwhile, the time experienced in continuous interaction is however long the interaction takes. Since data is constantly transferring, there is always a conscious experience happening. Therefore, our fictional universe had to use continuous interactions. If the universe were only discrete interactions, each interaction would take 0 seconds, and all of the interactions would add up to 0 seconds in length. 0 length of time collapses the timeline to be flat, allowing for nothing in that dimension of time to experience anything, acting as a spatial dimension. (For simplicity, we assume a spatial dimension stores location data, and the time dimension moves us along, like the frames in a movie)
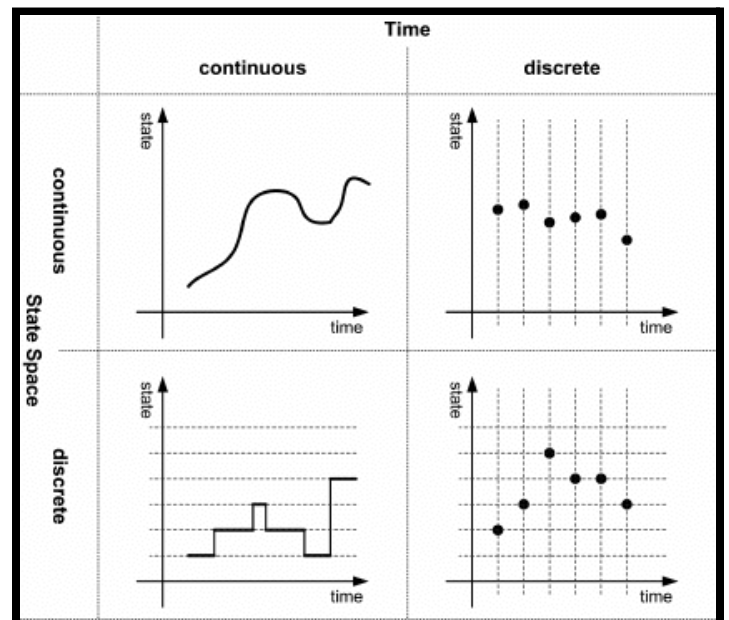
If there was a 2D universe with the third dimension of time, and that time was discrete, then the universe's structure is simply 2D, and the only experience possible is on the 2D plane, just like a video screen. The blank spaces in the time dimension of the 2D universe collapse 3D time into a 2D plane due to the lack of continuous interactions connecting the time dimension. If this logic applies to the discrete graphs in the figure above, the dots all collapse to the leftmost vertical line and lie on one dimension. Meanwhile, in our 2D universe, if the third dimension of time were continuous, the universe would have a third dimension to travel through.

Thus, when a particle is moving through space but not interacting with anything, that particle will experience no consciousness. The time between interactions is discrete, and the conscious interaction of the particle is dormant until the particle hits something or is affected by the fabric of the universe. (For now, I do not know if a particle's consciousness triggers when gravity changes its velocity). This model of consciousness would leave us to believe that the universe is at least partially continuous, but that answer is up in the air since quantum mechanics, string theory, and general relativity all have their answers.

The universe can still have both continuous and discrete interactions. However, conscious experiences lie within the continuous interactions. This logic helps piece together precisely how consciousness works.

## Concluding Thoughts

In the end, though, this logic may be flawed somehow. There is a likely chance. The bigger issue here is that we are playing with infinity and 0. The concepts of both are highly intertwined and equally mysterious. Does the discrete-time of the 2D universe allow a new flow of time between that 2D plane? Does 1/infinity = 0? Are 0 and infinity the same concept? A universe fully consumed by pure chaos may look no different from one with nothing since every area of space looks the same. Better yet, how do gravity, relativity, and quantum mechanics fit into these questions. Consciousness acts as a plane in the universe that bends, just like gravity. I do not think that this is a simple coincidence. Gravity may be the continuous glue that holds all consciousness together. However, these are all questions to be asked in later papers or other

people. In the meantime, though, we can pull apart and build upon the current logic of the universal model to point us in the right direction to a solution to consciousness.

Future papers will touch upon the directional flow of time, paradoxes in 0, and infinity that lead to consciousness, fractals, universal distributions of consciousness, induction, death, the emergence of vision, historical trees of life, religion, and much more. As always, thank you so much for taking the time to learn about my ideas. I hope that they can be of use to you and the world.

Feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

## The Universal Model as an Analysis Tool

## By Jesse Harman Rupe

## February 21st, 2022

## Paper 4 of 7

So far, we have spent the majority of the discussion of the UM on its different concepts. Now, let us take a deeper look into using the universal model to analyze various topics.

I have realized that the universal model is perfect for studying just about anything throughout my studies. The UM has helped me improve my understanding of relationships, has garnered intense insights into art and literature, has helped me understand physics on a philosophical level, and even guided my ideas on politics and good societies. We will study a few different topics in this paper: the UM applied to Exurb1a's, "The Fifth Science," the UM's perspective on democracy and the Constitution, the UM's take on abortion.

### *The Fifth Science* by Exurb1a

First, we will begin with a book called *The Fifth Science*, by Exurb1a, since in return, this book also helped develop the model [**See my note on Exurb1a, the person, after reading**]. Exurb1a is a philosophical/scientific Youtuber who used comedy, existentialism, and futurism to tell various stories. In *The Fifth Science*, he told 12 separate sci-fi stories that loosely connected to describe a grander narrative. In his words,

"The Fifth Science is a collection of 12 stories, beginning at the start of the Galactic Human Empire and following right through its final days. We will see some untypical things along the way, meet some untypical folk: galactic lighthouses from the distant future, alien tombs from the distant past, murderers, emperors, archaeologists, and drunks; mad mathematicians attempting to wake the Universe itself up. (Exurb1a)"

Thus, the universe-bending sci-fi nature of this book was perfect for analyzing in tandem with the UM. Specifically, Exurb1a's search for consciousness, intertwining tales, and grand

patterns of novelty, entropy, love, truth, and power applied directly to the UM. For context, when I studied "The Fifth Science," chaos and order had not turned into aperture yet. Emergence only consisted of hierarchies. Also, the human analysis tools of the model are not developed nearly to potential yet. Thus, *The Fifth Science* was crucial in developing the model while being an excellent analysis piece.

Throughout my life, Exurb1a's videos served as an inspiration for the model. He tackled the questions of consciousness in most of his works, wondering if anyone would ever solve the puzzle. In this book, he pondered how the study of consciousness would affect human civilization during an epic saga across space and time. In his words, there were four sciences: logic, physics, psychology, and sociology. According to Exurb1a, the fifth science yet to be studied thoroughly in modern times was consciousness. Thus, I chose to study this as a companion book to the model. I wanted to see if the model could apply to Exurb1a's questions and stories.

The opening line to his book inspired me to continue the pursuit of minds. It read:


"To the engineers and scientists

who will one day build minds;

from whatever materials,

in whatever form.

Hello from a time when we thought it was all magic. (Exurb1a 9)"


I started by using the model to map out the hero's journey of humanity since the book is composed of 12 short fiction stories. I studied how time flowed throughout the book, starting in the 1900s and ending 100,000 years later. Over time, humanity grew increasingly complex and then died out, just like the arc of a hero's journey: leading up to a climax and ending with a resolution. With interactions, I studied how various points in the book called back and intertwined, deepening the story and lore. The later the stories were, the more reflective of past protagonists' faults. As humanity dies out, the interconnectedness of the book fades as the civilization of humanity dies. The book finally ends with a protagonist deciding to enjoy simple

pleasures in life while staring into a starship graveyard. Ultimately though, the pillars of time and interactions are of little use on their own when analyzing literature. These two categories are used better as units of measurement for more derivative categories such as Emergence or life.

I applied Emergence, chaos, and order to the book with the next portion of the analysis. With the increased complexity of the study, many more revelations revealed themselves. As humanity spread out, its technologies developed faster and chaotically, mirroring modern times and how we went from subsistence farming 150 years ago to today's internet. Tyrants vying for order ended up creating more chaos. I saw humanity experiencing an entripital(entropy) path, starting in order and slowly turning to chaos. In physics, entropy describes how systems become more disorderly over time. Entropy happened to humanity in the book since civilization grew extinct from constant war and chaos.

Exurb1a even asked in the book if all civilization was doomed to an entripital state. Also, in his book, spouts of novelty could be found. Novelty acts as moments of order arising from a chaotic system. While reading the book, I realized that entropy and novelty were essential concepts to the Universal Model: a subset of Emergence created by combinations of chaos and order over time. The universal model was beginning to expand.

I continued my studies into the lifeforms of the book. Various entities of the book fit the definition of a lifeform. Life is any system attempting to perpetuate its existence through survival or reproduction. Corporations, people, aliens, themes, ideas, and human civilization categorize as lifeforms. From stage 1's to 4's, the book showed the breadth of possibilities to my imagination. Human civilization acts as a large, semi disjointed mind, made of billions of people and AIs. Exurb1a described stars as living, communicating over eons through detecting light. (Whether possible or not, these ideas made me realize that even planets, holding their matter together, act as lifeforms refusing to explode due to gravity).

While reading, I realized ideas and themes are living too. The various sci-fi tropes used throughout the past 200 years evolve on each other, reproducing through many books and shows while adding variety. For example, Exurb1a's work pulls significantly from "Dune" by Frank Herbert. Exurb1a used spice, grotesque starship navigators, and telekinetic powers,

drawing from Dune's ideas and other sci-fi stories. The timeline of tropes showed how the categories of Emergence and life could apply biological processes like evolution to non-organic matter and even conceptual ideas.

Evolution also occurred to humans in his book, where different species of humans emerged. Different ideas evolved throughout galactic civilization. AI has evolved to become so conscious that they solved all problems of the Universe. After all these instances of evolving life forms, I reached a logical definition of evolution in the UM. Evolution is a combination of novelty within lifeforms. Minor changes to lifeforms, instances of novelty within a system, would evolve any lifeform. In genetics, these changes may be good or bad. All in all, evolution plays a large part in the UM.

Exurb1a also introduced me to man's three main goals: truth, love, and power. To quote the book,

"In all things, across all avenues, a choice must be made: whether to follow love, truth, or power. That choice will consume the chooser. If he follows only love, then his well-being will be constantly at the mercy of another, though his highs will be sublime. If he follows truth then it will be a lonely journey, but potentially a noble one. If he should follow power though, not only will he come to know a desperate and revolting loneliness, but he will also never experience even a drop of satisfaction in anything. (Exurb1a)"

I believe we can follow multiple of these paths at once. I want to incorporate all three pursuits into my own life. In doing so and discerning my goals into these categories, I have been able to focus my energy allotted for personal growth more efficiently. Somedays, I focus on power and improving my engineering business and skills. Other days, I focus on love, hang with friends and family, and build relationships. Then finally, on days for truth, I write about and analyze the Universe as I do right now. With the UM, love analyzes interactions between lifeforms and their apertures. Power uses Apertures and Emergence to explain patterns. For example, hierarchies and energy levels derive from our connotation of power. Seeking truth is a

conscious endeavor that analyzes all the pillars at once. In the future, as we gain better UM definitions that relate to Truth, Love, and Power, the UM will be able to quantify aspects of these concepts. In combination with UM definitions, these concepts create a translation tool for the UM into human lives.

Overall, Exurb1a's insights in *The Fifth Science* had an enormous impact on the concepts of the UM and proved the UM's worth as an analysis tool. Many ideas Exurb1a discusses are not groundbreaking. Love, Truth, and Power are all age-old human concepts. Entropy, novelty, and evolution are all concepts from various areas of science. Each past discovery of humanity was significant. Sadly though, each concept cannot explain the whole of the Universe. However, when these past discoveries are placed side by side and connected to define each other, they form a Universal Model that is greater than the sum of its parts. Exurb1a's writings helped bring many concepts into the UM, bringing increased clarity and direction.

## The UM and the US Constitution

Now that the UM has been used to analyze literature let us pivot to a new topic: governments. Since the UM deals with fundamental, universal laws, it can tie into man's fundamental, universal rights. We can use the UM to justify many of our current rights and use that justification to either reinforce current governmental structures or alter them. Luckily, some brilliant people 250 years ago used similar enlightenment philosophies to enshrine these rights in the Constitution and the Bill of Rights document. So, let us analyze these documents with the UM to gain new insights on why they are so successful at organizing a free nation.

The Constitution is a document that outlines the structure of a nation. A nation is a Stage 4 (S4) entity that consists of S3 Humans. Throughout history, many nations and empires have tried to gain control by oppressing their populations. Instead, the Constitution laid a framework of cooperation between S3 and S4 lifeforms through fundamental rights, individualism, and layered federalism.

Before we delve into applying the six pillars of the UM and subcategories to the Constitution, we will compare the nation's structure to the structure of a human body. Each person is similar to a neuron or cell, and the whole person is the nation. People can organize

into organizations similar to organs. They can notify their government/brain with political tools and nerve signals. Then, political organizations and ideas capturing a nation act as the brain's thoughts.

In the Constitution, freedom of speech and the press are vital and frontline in the Bill of Rights. The freedom of speech increases a nation's consciousness level, ability to solve problems, and citizens' well-being. Like pain signals from nerves, people can send pain signals through the governmental mind, telling the leaders that an action they took was harmful. Nerve signaling in a democratic nation happens through speech, voting, and other ways of political participation. Furthermore, unpleasant thoughts of guilt and regret within the brain or revolutionary epiphanies acting through neural groups are similar to communities developing new ideas or holding redress. Within aperture, freedom of speech represented increased flows of information and increased novelty in Emergence. A tyrannical society may seem orderly, but there is chaos and pain within the minds of citizens. A free society has chaos act within free interactions between people instead of torturing the minds of citizens with tyrannical "order." There are always limits to rights, too, such as speech that shows clear and present danger is similar to a faulty neuron sending false distress signals.

Then, limits on the national government outlined in the Constitution represent the rights of S3 organisms concerning the S4 government. I think a pattern exists, where the higher stage an organism is, the more independence they have from even higher stages. Stage 0's hold little independence from stage 1s. Thus, the stage 0 fundamental matter has almost no freedom of choice within the actions of a single cell. Then S1s have some independence from S2s and S3s. A red blood cell has small autonomy over the resources going in and out for transport. Then an immune cell, which is on the more complex end of the S1 range, can choose which virus to fight and if the virus is harmful, allowing more freedom of choice. Then a Stage 3 person has a strong level of control over S2s and S1s since we control our body and the coordinated actions cells take to move. However, the cells can send nervous signals to inform the S3 brain of their status. Unlike S0 matter with no rights, the S1 cells have some leeway. S2 organs and portions of the brain act even more semi-independently. For example, S2s interpret sensory information,

balance hormones, and control heartbeats without much of our S3 conscious influence. The S2 represents the subconscious we can partially control.

Then, our stage 4 Constitutional government must have less control over us, S3 humans, since we have greater control over our destiny and increased rights to independence. Higher stages need increased autonomy because their increased consciousness means they must also oversee more matter and life. Our brain oversees trillions of cells, while a single cell oversees only hundreds of organelles. The US must oversee 330 million people and thus, need a federalistic balance to create prosperity. Stages of equal level deserve full autonomy from each other, as no human should control the life of another human, no nation to a nation, and no equivalent cell to cell. There are situations where a criminal human or nation must be punished or acted against in self-defense, but the actions of the innocent only are prompted when the criminal infringes upon universal rights. Overall, the US structure supports the natural order of life stages 3 and 4 within the UM.

Equality is important, too, since every person cannot be discriminated against by the government's treatment and judicial law. In minds with neurons, weighted information flow on arbitrary concepts like color will bog down the brain and lead to disease for no reason while harming healthy, working cells. The same applies when the government discriminates against people. Discrimination bogs down a society's consciousness, prosperity, and citizens' well-being while violating universal rights.

Federalism reflects the stages of life and division. Organs of a human body to cells are like states to a person. Then the Federal government is the mind connecting all the organs into one system. The lower levels of the grand organization need their autonomy to solve more minor issues, just as our immune system has levels of autonomy to destroy viruses without our conscious control. Federalism is a consequence of universal hierarchies and Emergence.

Tyranny also leads to turmoil in a nation's mind, similar to taking too many medications to try and control the body. A free and diverse culture/nation reflects the diverse nature of the Universe itself. A free and diverse culture will also explore all aspects of the Universal Model. A free culture will form greater consciousnesses than a human can experience. Unity and peace

will be felt on a broad scale, just as a person can meditate their mind. Remember that any system has consciousness, and thus, our nations have minds to take care of too.

These comparisons do not just apply to the US constitution and structure. They apply to all organizations of any stage of life. As time goes on, we can study similarities between biological life, corporations, nations, ideas, and organizations. We can make variables that quantify any living system, like the quantity of free-flowing information or levels of rights given. Aperture and Emergence under the understanding of Power will benefit the analysis. All in all, the UM is excellent at analyzing biology and other life forms, such as the US Government.

## The UM and Abortion

Next up, the UM is a valuable tool for paradoxes, dilemmas, and unsolvable issues. The complex nature of the UM gives this value. With every concept, the UM refuses to take a simple, black and white view of the Universe. With consciousness, no object is or is not conscious; instead, the entirety of the Universe's matter is on a spectrum. With life, no system is alive or dead; they are at different stages of complexity. Even with time, since all things are conscious, everything has an experience of time at varying speeds. Thus, we can use the UM to parse out unresolved issues when the issues are simplified too much. One such issue is abortion.

Often, the abortion issue considers the fetus alive or dead, based on personal opinions. Alive or dead is the wrong question, as it oversimplifies the issue since everything in the Universe is alive on some level. A study of abortion using mathematical principles to answer a fetus's stage of life is a better metric than an alive or dead analysis. Thus, the UM's Life category would shine in analyzing abortion.

I developed an argument that analyzed the level of consciousness of the fetus to determine the best compromise between development time and performing an abortion. I defined five stages of life to determine the development of a creature. Stage 0 is fundamental matter, and stage 1 is cells/bacteria. Stage 2 is relatively unconscious multicellular organisms like a tree or an ant. Stage 2s from stage 3s, ranging from mice to humans. Stage 3 could also

consist of conscious, non-biological creatures like a self-aware AI. Then, stage 3s organize into stage 4s, like a nation or a company. However, stage 4s are not required to analyze abortion.

The timeline of pregnancy is also essential to the abortion issue. Time determined the development of creatures, the stage level of a growing lifeform, and the experience of consciousness. Without analyzing time as a continuum instead of just the moment of conception and birth, the abortion issue is not understandable.

So I took the concept of probability, time, and life stages to mathematically estimate the propper limit for an abortion. Before the sperm meets the egg, the human is at a stage 1 phase. As the sperm meets the egg and becomes multicellular, it transforms from stage 1 to 2. Then when neurons start forming, the fetus moves from stage 2 to 3. When the brain forms, the fetus solidifies as a stage 3.

Interestingly, there are multitudes more potentials for different humans to be born at lower stages. The various stages also solidified hierarchies as an essential part of the model. The increasing chaos and orderliness of higher minds are just as necessary. Calculating the UM variables over these timelines will determine the best time for an abortion.

As a stage 1 sperm before conception, billions of possible people can be born between the mother and father. During intercourse, millions of sperm are released. Thus, millions of genetic codes from the man are unleashed. Combine that with environmental factors during pregnancy and the potential genes of the egg, then billions of potential humans can be made by one pairing of people. Each potential person has different potential personalities, relationships, future experiences, and more. If 10 billion people are possible from the stage 1 phase, then anyone person combination has a 0.00000001% chance of being born. This probability does not even factor in many of the other possible factors. Thus, humanity must live knowing that most people possible to be born will never be born. This existential philosophy will relate highly to free will in future papers.

Then after contraception, where one genetic pair forms, the chances for any singular possible person to form at birth increases drastically. We need future Universal Model math to calculate the accurate probabilities of the number of possible people from 1 genetic pair. However, we can assume environmental factors will leave us with 10,000 possible people for

the purposes of this argument. Then as the brain starts to form and stage 3 starts to solidify, this number dwindles to 1. Morally then, as the last 100 people become very similar, within 51% similarity, we can assume that 51% is enough to justify keeping the fetus. This justification comes from us knowing that most of the person will exist in the future. Then because they will exist in the future, they have a right to try out the game of life. The UM has now allowed us new insight into the continuous nature of lifeform development and determining the proper timeline to stop abortions, depending on the percent of a complete person the public decides is human.

Furthermore, if a fetus threatens a mother's health, the mother will be prioritized because a present living stage 3 has priority over a potential stage 3. Thus, with the increasing stages of life, one final, whole person is born. This argument brought in the factors of time and life. The argument also solidified hierarchies as an essential concept within the UM. In the future, the UM can analyze the effects that abortion survival could have on a developing child. The UM will analyze whether keeping a life without a mother in a foster care system is worth the turmoil. If 90% of people born after an abortion end up living an awful life, the UM will provide insightful moral analysis to determine if the opportunity to live is worth the resources. The depth of the UM allows paradoxes to create out-of-the-box solutions from other disciplines within the model. All in all, we can use the Universal Model to analyze life's toughest paradoxes.

## Conclusion

As seen with these three studies, the UM is more than just conceptual definitions. It is a tool to use against the Universe itself. The UM's nature is modular, allowing it to analyze any event, concept, idea, or thing imaginable and unimaginable. The UM opened new dimensions of analysis and connectivity to stories and literature. Exurb1a's book, *The Fifth Science,* is a wacky sci-fi novel. However, the UM peered into its more profound meaning and swiftly applied the concepts to real-life patterns. Then with the US Constitution, a matter of human organization, the UM helped prove why certain aspects of the US government and ideals function so well in our Universe. Fundamental rights such as liberty from more extraordinary governmental checks and freedom of speech reflect the patterns leading to more profound and prosperous national

consciousnesses. These rights are reflected in the rights of Stage 3s to resist the tyranny of a hivemind stage 4. Also, freedom of speech increases information flow within a nation, creating more conscious depth. Then finally, the UM applied itself to a challenging paradox, the abortion issue. The UM's modular nature was able to bring together many different perspectives on abortion and create a coherent, logical understanding of the universal reality of minds within having an abortion. As time goes on, the UM will apply to many more concepts. Every concept the UM analyzes will, in turn, develop the UM further into a fuller understanding of reality. The Universal Model will eventually be able to model the entire Universe. As always, thanks for reading!

Feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

### Note on Alexander McKechnie (Exurb1a):

I first started watching Exurb1a 5 years ago in 2017. I read *The Fifth Science* and *The Prince of Milk* in 2019. His videos and books greatly influenced my outlook on the universe for the better. However, since I discovered Exurb1a's works, there has been significant controversy around him. If you are interested in more, a quick Google search of "Exurb1a allegations'' will reveal the whole story. **I do not condone anything Exurb1a has done to hurt other people, nor do I believe his "experiments'' were moral.** However, I will still cite his influences since recording the detailed developmental history of the UM is essential. If there is any takeaway from this, it is that sometimes bad people contribute great ideas to humanity's canon. Thanks for reading this note.

**The Universal Model's Future Use**

**By Jesse Harman Rupe**

**February 21st, 2022**

**Paper 5 of 7**

Now that we fleshed out the Universal Model and used it as an analysis tool, can we prepare the UM for future use? What areas of study will the Universal Model unfold? How can we use the UM to inform society, technology, economics, and politics? Ultimately, what is possible with the Universal Model?

To answer that question, so much is possible with the UM that I am unaware of its proper scope and breadth. I have barely touched on the ideas relating to the UM that I have uncovered. New universe perspectives and ideas will come about by sharing the UM's ideas worldwide. With that said, let us dive into a small percent of potential uses for the UM. First, I will describe practical uses; then, I will delve into the studies to explore in the immediate future. Every topic will be briefly touched on to avoid bloating the essay. Each of these topics will need vast amounts of research on its own merits and serve here as a glimpse into the tremendous potential of the Universal Model.

## The UM, Science, Math, and Technology

The most apparent use of the UM and its scientific nature would be to apply it to science, math, and technology. The UM and science are trying to solve the same conundrums, from the nature of consciousness to more efficient technology. We will use the UM as a tool to view scientific discoveries in new lights. The UM has a highly interdisciplinary nature with philosophical insights. The interdisciplinary nature will lead to new insights within science, technology, and math. For example, we can compare biology with computer technologies and not just in similarities but in the most basic patterns of information transfer. The UM organization will build off the scientific community but with a broader scope of contributors.

The UM and math will have a codependent relationship. Math will take the dominant form in the relationship during the UM's growing years. Mathematics with insights in physics

will inform how consciousness and time relate. For example, complexity theory in mathematics will analyze Emergence and Consciousness. Then the energetic studies of Aperture will draw heavily from physics math. Over time, the UM will use induction proofs to show that consciousness extends down to atoms. Induction is a repetition-based proof that allows mathematical structures to build on a starting point. Hence, a mind is conscious, then a brain section, a neuron, an organelle, and finally an atom. Every word and pillar of the UM will use terminology and logistics that use mathematical concepts as the core principle. That way, the relations between ideas in the UM can be streamlined and studied in multiple dimensions at once, forgoing much of written language's linear narratives.

Once math has informed the UM, the UM will inform mathematics. The philosophical insights from the UM will supply philosophical insights into the many paradoxes found in math. For example, the UM refers heavily to the concepts of chaos and order. We can compare nothingness to pure order with no chaos, similar to 0. Meanwhile, endless chaos with pure randomness, like the static of an old Tv screen, creates a similar effect of equilibrium across the space. There is an equal amount of order created from infinite chaos. The chaotic constant can represent infinity. If the pure chaos and pure order of nothingness represent the same concept, then maybe 0 and infinity are intimately related, acting as two boundaries to a number line that is equal in reality, creating a loop. Debates even exist within math if $1 \div \text{infinity} = 0$, and the nature of dividing by 0. When we divide by 0, can we get any number we want? Infinite possibilities. The insights from the UM will be invaluable to solving these paradoxical conundrums in math. Heck, paradoxes may lead to physical matter, wherein when a paradox has no solution, the universe creates a dualistic matter that borders reality and nothingness to solve the paradox. I am getting ahead of myself, and this discussion is one for another essay. All in all, though, the UM and math will be very codependent.

Additionally, and just as important, the UM will innovate and create new unique technologies. The UM's complex analysis of the world will allow us to create even more efficient processes due to the interdisciplinary comparisons between fields. We may remerge technology and biology since the UM points towards the two emerging from the same evolution tree on Earth, the humanity branch. As of now, the mechanical world is paving its way across the globe

as cities, factories, and mines. This pattern is not sustainable for a prosperous and diverse universe. Hopefully, combining disciplines under the guise of the UM will create technology that integrates technology into the biological environment instead of destroying biology.

For example, imagine a house made of living tree bark instead of deadwood planks from the murder of forests. Maybe the forests will have small devices to study nutrient movement, allowing for a computer model to translate the forest's thoughts. Perhaps dolphins will gain the proper tools to write a form of their language. These are far-fetched claims, but the UM emphasizes that the entire universe consists of infinite potentials for lifeforms. When technologies can die out, evolve to compete, or even borderline on consciousness, then there is reason to believe that technology is itself, a lifeform. I hope the UM will remerge our planet into one unified ecosystem again.

Furthermore, the UM will give us insight into the conscious levels of animals, incapacitated people, and artificial intelligence. We will finally have the right tools to diagnose a brain-dead patient with insufficient consciousness to determine their continued survival. Every species can be studied to determine their accurate level of consciousness compared to humans. We may learn that entire forests had thought processes on par with humans but just thought at a much slower pace. We will analyze the consciousness of artificial intelligence(AI), how we might be torturing it, and the chances an AI will try to harm humanity. Morally speaking, the UM will be a breakthrough in combining science, technology, philosophy, and morality. Overall, the UM will be a remarkable philosophical and metaphysical addition to mathematics, technology, and science.

## The UM, Nations, Organizations, and Economics

The Universal Model can also analyze and improve current political systems. As described in essay #4, *The UM as an Analysis Tool*, the UM works very well to prove why democracy and the US Constitution are effective. We can extend these analyses to other political systems. We can analyze the level of interaction and control the government shows over people. We can analyze these systems as lifeforms that have evolved, died, grown, and

reproduced. Our understanding of any system from political parties to fundamental rights to wars benefit under the UM's potential for analysis.

Aperture and Emergence will be of utmost importance, as it describes the nature of chaos and order. The patterns of peace and war can extrapolate the illnesses of states, similar to diagnosing biological illness. The nature of globalism builds upon Emergence & Life as multiple ecosystems merge and war. Even the nature of the American presidency, acting like a four-year pressure valve for the society, can be analyzed with physical concepts such as pressure, energy, chaos, and entropy. The relationship between individuals and the state compares to that of a cell and a living organism. We will even gain insights into the rights that our cells may work under and extrapolate universal rights to all matter. For example, the more conscious a system is, the more it has a right of independence from other systems. My cells are not very conscious, and thus, I can use them to live my life. However, I am a very conscious individual, thus granting me greater autonomy from the United States Government (my home country).

New economic ideas and systems will generate from the Universal Model. As stated before, biological concepts will combine with economics more intimately than current metaphors allow. The transport routes of the world are the blood vessels and veins of society. That is a typical comparison that the UM can study. Veins of cars bustle about with the ordered chaos of traffic, balancing timing, creating daily cycles of flow, emerging national structures, with cars consciously aware of each other, and perpetuating the life of civilization and community. But what about money? Is money a hormonal system for civilization? Is it a resource transfer system? Is it an energy storage system that releases power when used, like the energy molecule ATP found in cells?

Currently, societies use one currency within their respective nations for all of these purposes. However, biological bodies use many different hormones, value transport value systems, and energy storage systems. What if a potential solution to our economic woes is to split the single-currency monetary system into many parts serving many functions, just as each body's hormone serves a function. Some compartmentalized currencies can use socialist concepts, helping the lower classes. Then past specific monetary amounts, increasingly capitalistic and competitive currencies kick in to support the benefits of a capitalistic society.

Every benefit of every economic system in history can be cherry-picked and combined into new systems due to the versatility of the Universal Model.

These concepts do not even touch on graphing monetary history in comparison to evolution principles. Neither does it touch on studying the levels of consciousness of companies, their apertures, interactions, time-scales, or other UM concepts. Even the notion of political empires has been thrown on its head since corporations are so large and powerful that they are modern-day kingdoms. Every organization has analysis potential within the UM, not just nations. The UM will bring about more efficient and moral systems for companies to use, increasing profits while increasing the benefits for society. By analyzing the best biological systems on Earth, we can quantify biology with UM terminology and math. Then reapply those principles back into our politics, organizations, companies, and economies.

Then, adding in the technological angle, so many potential futures begin to unfold. Cryptocurrency may build the backbone of the multi-currency system. Blockchain technology, which serves as a digital confirmation system, can create digital nations and citizenship. The internet has already increased the consciousness of companies and nations through the interconnectivity it allows. Thus, new lively minds will form when the UM organizes a system further to maximize consciousness. New empire types foreign to our current understanding will go beyond current corporate and national structures, likely fusing Earth's biology into the process. As mentioned earlier, the UM will form a backbone for the fundamental rights needed in the face of these unforeseen organizations and connective technologies. When the world continues connecting to the internet and merging everything, the UM will provide the insight needed to secure people's individuality in the face of global consciousnesses. There are endless uses for the UM when combining technology, economics, and politics. I can barely comprehend the possibilities.

Perhaps even a new political party or two will form from the revelations of the UM. The problems of today are incredibly complex beyond any one person's understanding. However, the UM will create new solutions to our issues due to its ability to comprehend large amounts of data, mainly when studied by many people. As seen in essay #4, *The UM as an Analysis Tool*, abortion was reviewed in a new light while still giving merit to both sides of the argument. The

UM will give the public the tools necessary to find a problem's core weakness and strike at the Achilles heel. People will use the UM to analyze and solve any problem at any level, from global to household. Then, people can organize under the new moralities that the UM proves with mathematics and science. Much of the moralities lie within constitutions already and only need minor altering. Fundamental rights may even expand just past humans and to all potential minds like the forests described earlier. Hopefully, new leaders will arise and use the UM as an analysis tool for good. Who knows if the UM ever gets used politically, but if it does, I hope it can bring about good evolutionary change in the way humanity operates with the world.

### Future studies

Finally, the UM has many other future uses. I can only hint at them here due to length restrictions and my writing ability, but I will try to convey the infinite potential of the UM.

The UM will be used to study all philosophical conundrums. Not just the Ship of Theseus, but problems relating to free will, God, mind-body relations, and the true essence of matter. For example, the UM leads me to believe that free will is not a yes or no question. In the UM, there is never a black and white answer to anything. Instead, free will is a percent of our certainty of the future. We can change our future; however, the percent chance we do is the amount of control we have over the future. Although the universe may be fully deterministic, we do not know the future and thus, can act as if we will determine its future instead of simple physics. Then the simple physics of our determination in our mind will create the future we want. Mathematics will combine with various philosophies to quantify concepts like free will and the level of consciousness left in the Ship of Theseus. Furthermore, the UM can cherry-pick concepts from all philosophies, making a great list of concepts that are most likely to be accurate. Listed here is just a slice of the pie that is the philosophy the UM will tackle.

The UM will study religions en masse and compare all ideologies. The history of all human ideas maps out as an all-encompassing evolutionary tree. Any idea can be absorbed and altered into the model of the universe. New extrapolations of history will emerge as a result.

More math will develop for and from the UM. As mentioned earlier, studies of 0 and infinity will be essential. Death can be defined mathematically. Integrated information theory

can be added to the UM to act as a calculator for complexity. Physics comparisons will be rampant within the model. For example, the transitions between Life stages may be akin to the transition of matter from solid, to liquid, to gas. Every category and variable in the UM will gain mathematical counterparts.

Time will also take a significant stage of inquiry. The UM can create the most intertwined and advanced timelines imaginable. I wish to explore many evolutionary trees of time, too, especially relating mechanical tech to biology. Evolution may be semi-conscious, intentional patterns once we map them with the correct time scales that reveal millennium-long thought processes. Conscious wells can also split and merge, which I have not touched on. Topological proofs (a form of geometry) will play an important role. An essential concept of informational pipelines creates the backbone of Aperture and Emergence's connection. The information pipes have borders of order that move around chaotic systems (anything from a wire, river, or city march).

There are universe-wide hierarchy distributions to study. At increasing complexity comes the cost of quantity. For example, an entire sun's worth of matter supports life on Earth through fusion energy. The Earth's dead matter of the core supports gravity and magnetic protection for the surface. Compared to this dead matter, the amount of living matter is like a pebble on a beach. Then, the number of bacteria/single-cell organisms that exist is exceptionally high compared to multicellular organisms. Then, human brains make up a small percent of multicellular organisms. This hierarchy forms an exponentially increasing relationship with the matter needed to support increasingly conscious life. Many patterns like this must be studied. Fractals form everywhere in the universe as they are an intrinsic property of Emergence and complexity.

Practically, we must do human body studies that analyze the mind concerning the body with the UM. What sections of our body are more conscious than others? How alive are the bacteria in our gut? Does each organ have mini minds of its own? We must use conscious-well topography to graph our senses' complexity and combinations. We can then discern the structure of experiences, such as focusing on a single flower against a backdrop of a forest.

We will be able to crack open our understanding of the brain like never before. As hinted at in *The Basics of the Universal Model*, the UM offers a solution to the Ship of Theseus issue. The setup is a ship having its parts replaced until no original parts remain. Then, is the ship still the same? The UM says yes, because as long as the people living on the ship are the same, then the consciousness of the ship and its memory are stable. This logic will allow the UM to create computer-brain interfaces, where each neuron is replaced one by one, creating a seamless transition of the brain into a computer. Neural transferring is different from just cloning a duplicate into a computer with code.

Then within the brain and nervous system, we will use topography to map out the neurons and the math behind the interactions and various areas with their levels of interactivity. Our sensory organs can be mapped with hierarchies, allowing us to understand the concepts like visual focus and categorization. Previous theories of the brain will compare and combine to create a fuller picture of the mind. A simple act such as viewing a shampoo bottle will break down into many parts. As hinted at in the *Universal Model Basics*, the UM can study a shampoo bottle as a living idea, the corporate megastructure behind the shampoo bottle, the evolution of shampoo bottle species, and much more. Then, studies can analyze the shampoo bottle experience of someone else's mind for comparisons. Just with a shampoo bottle, the UM will open up an infinite amount of perspectives.

We can make virtual reality programs to graph everything in the UM too. The UM must take advantage of interactive websites and mass education tools. The fantastic information theories of computing must implement themselves into the UM too. To get the word out and create a democratic process for the UM, everything from videos to company startups must contribute effort. Hopefully, by now, I have made a case for the future uses of the UM. There is an infinite amount of ideas left unexplored right now.

### Final Thoughts

As I have repeatedly stated, the Universal Model is far from finished, highly prone to error, and made of one mind's opinions and discoveries (my own). However, the vast potential that the discoveries of the UM foretell will not just be revolutionary but evolutionary. We must

address all potential flaws of the UM and iterate upon the UM's ideas forever. Perhaps, like the scientific process, a new process will emerge that combines the subjectivity of consciousness with the UM. This new process must have the same checks, balances, and rigor that the scientific process has.

The UM is similar to a babbling child right now, barely learning to speak. As time goes on, it will mature and grow. This growth will infect politics, economics, technology, philosophy, and other fields. There are an endless number of ideas to explore. These papers begin a grand fractal that will emerge and explode with possibility. The future paths of the UM listed earlier show the fractal beginning to explore its limits and expand.

Whenever I think about the model, I can see the core of a galaxy-looking structure. This structure has multiple tendrils starting to grow. While writing these papers, I have had many new revelations about the UM that I cannot even get into now. I can only hint at new books, stories, and research that I have gathered since writing these papers. With each new revelation, a tendril of the structure explodes out into a vast rainbow of possibility. The tendrils fracture into hundreds of other paths. Then, when multiple tendrils fracture due to new revelations and confusions, they begin to remerge with each other and intertwine. Playing in my mind is a beautiful galactic dance of consciousness and truth. I am biased towards UM's beauty, but there is importance to the awe-inspiring nature of the ideas in the UM.

The connectivity of these ideas and their underlying patterns is essential for the UM. The Universal model is a set of patterns that apply to every object and system, explaining how consciousness and time cause our experience of reality. That is its core purpose going forward. Hopefully, the UM can live up to its potential to change our future for the better.

Feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

## The Universal Model's Impact on Society
## By Jesse Harman Rupe
## February 21st, 2022
## Paper 6 of 7

The Universal Model will have profound positive impacts on society and the Universe. I gave the Universal Model a monumental name due to the scope of topics it encompasses. To be specific, the Universal Model is a way to model absolutely everything conceivable. The UM is a metaphysics hypothesis. Metaphysics is "the branch of philosophy that deals with the first principles of things, including abstract concepts such as being, knowing, substance, cause, identity, time, and space," according to Lexico Dictionaries. Politics, biology, literature, love, physics, science, mathematics, consciousness, life, light, time, experiences, and anything else are constituent parts of the Universal Model. I can go on and on and on. The UM will have such positive impacts on the Universe because it allows us to fully peer into the hood of broken systems, take a wrench to our problems, and come out with many solutions.

The Universal Model's impact on society will be extraordinarily novel and broad, altering how we view our Universe. The UM uses profoundly creative combinations of ideas, merging consciousness into the fields of everyday study. It does this by using interdisciplinary principles at its core. If all studies and subjects of the Universe study the whole Universe, they must all interact. The UM combines math, physics, biology, technology, politics, literature, conscious experiences, philosophy, economics, religion, and so much more to form a complete, multidimensional perception of reality. All constituent parts of the model form to create the whole, currently understood, human experience and known processes of the Universe.

The interdisciplinary ideas of the UM form many vital categories and subcategories. The main categories are, in order: time, interactions, apertures, emergence, life, and consciousness, looping back to time. These six core pillars combine and hold within them many subcategories such as entropy, novelty, hierarchies, chaos/order, energy, evolution, complexity, truth, love, power, and so much more. From these categories, we can gain the daily interdisciplinary studies of man. Then, the new insights from the UM allow humanity to solve our most significant

problems and paradoxes. Issues such as abortion can be boiled down into logic and philosophy while keeping the importance of human experience and quality of life.

The great philosophical questions of "what exactly is matter," "is time an illusion," and "do we have free will" can be easily broken into solvable sub-questions, allowing us to debate the mechanics of the paradoxes and problems. Of course, new problems and grand paradoxes will arise, but these will be different, dealing with deeper fundamentals than the model or sub-categorical questions more minor than the significant ones stated earlier. The UM will allow us to discover more profound fundamental laws and questions of the Universe, allowing us to ponder what other realities may be like, where the essence of existence is entirely different. Academia as a whole may be thrust into a new age of insight, connecting all interdisciplinary studies, creating novel insights never before pondered.

## The UM as a Public Effort

Most importantly, the Universal Model can be built upon and altered. I am not the only person who has contributed to the development of the UM. I developed the UM over a decade, from dozens to hundreds of sources. I developed the UM by combining the best ideas from the brightest minds, mixing them up like puzzle pieces, adding a dash of my insight, and forming a more accurate image of reality. For example, gravity bending space-time was a revolutionary idea from Einstein. Then, equating consciousness to water and waves came from a quote in the show, *The Good Place.* Then, I added my insight of equating consciousness to water inside gravity wells, having the experience of the Universe stuck within the well, and calculating the depth of the well based on complexity, stage of life, and time-cycle alignment. Most of the ideas and concepts in the UM did not come from me and will not. Thus is the nature of all human ideas, evolving from person to person. I do not want to work on the UM alone, just as no single person should rule over a nation. The UM must be a democratic effort from all walks of life, from the most esteemed academics to the youngest children. Every human on Earth has a conscious experience, their take on reality. Thus, if every person could contribute their ideas and experience, a great consciousness of the Universe could form. The UM acts as the backbone of the universal conscious structure, malleable to the discoveries of man.

To fully realize the potential of the UM, I plan on growing a community of people to work on it, collaborate, and communicate their findings. The organization is highly similar to the current academic community but will include a broader range of people & studies with a broader scope of influence and solutions. The process will start with a simple website with interactive pages on my various ideas with the model listed in these essays. Then I will create forums for people to sign up and discuss. Ideas can be voted on, passed to change the information, struck down, debated, etc. This process will work similarly to the US constitution, with core pillars of the UM needing more support from the populous to change. Then professionals in their fields can debate specifics. The process is similar to how legislation changes by a 51% congress vote or regulation changed by smaller committees. For topics that deal with highly complex sciences such as quantum mechanics, experts in their field will have seniority over ideas while having systems to allow the public to weigh in. Most importantly, no single person should ever have too much influence over the Universal Model.

Ultimately, this structure of the UM mirrors that of a democratic nation on purpose. If the UM truly applies to all people and all subjects, then every conscious being must be a part of solving the problems of reality. The fastest and best problem solvers in our Universe tend to be conscious minds. Thus, if humanity can build the most extensive consciousness ever to solve our most profound problems, then the progress of the Universe's experience will be grander than anything before. Society already mirrors the human mind, with every person interacting like neurons in the mind. The ultimate consciousness that forms from efficiently organizing the UM using technology like blockchain and the internet will have an incredible societal impact. The UM may even merge with the internet, helping dictate the best ways for humans to interact and merge with technology. Issues from mental health to logistical economics to internet censorship can be analyzed en masse concerning the various categories of the universal model by large groups of people working together. Inefficiencies in our bureaucracy can be analyzed like biology and given remedies that mirror the health of a living creature. Anyone with any insight can throw their ideas into the hat and influence the UM's development.

Then, when people do not agree on ideas, or there are risks to the universal laws being faulty, we can experiment with different versions of the model, just as the states in the USA test

various policies in different states. A significant problem for such a large community is keeping peace and not splintering the project into a dozen different directions. Who knows, maybe there will be one agreed-on model or 10. Hopefully, though, two fundamental ideas reign true: 1, consciousness exists because I am currently experiencing reality, and 2, that the experience of a flow of time exists because my thoughts would not progress without a direction of time. All other ideas in the model are a product of these two fundamentals. Luckily, I feel like the pillars of the UM are sturdy enough that in all future renditions of the UM, they will retain some essence or form within the model.

## The UM & Everyday Humanity

Basing the UM on intuitive ideas was very intentional. Examples of intuition within the model include chaos & order, time, interactions, and consciousness. We know these concepts exist through our everyday experiences. Humans understand these ideas intuitively because our brains have evolved to understand the Universe in order to survive. Since an understanding of Universal principles evolved in our minds, we can intuitively understand much of the UM. Alternatively, I tailored the UM towards the human experience, which can be equally valid. Even if this is the case, the UM is still highly beneficial for our society and finding deeper patterns. There will still be deep, complex questions about the origins of the mind, deep physics, and many other fields of study that we need experts to parse. However, the base concepts of the model remain understandable to most.

By using a few fundamental concepts, the Universal Model becomes highly modular. This modularity allows the UM to latch onto any field of study, idea, organism, system, or anything else. The base concepts of the UM are understood better as measurable variables, like time scales or the amount of chaos in a system. Then, when these variables combine, they create anything imaginable, from the simplest atom to the grandest empire. The model's modularity will be the catalyst that impacts society on the deepest levels.

Each person I explain the UM to has their interpretations, experiences, and hypotheses to aspects of the UM that apply to their life. The UM's broad, modular use cases allow anyone to use it as a tool in their own lives. One friend of mine used the UM's aperture category to

analyze the areas of chaos and order in their life. Meanwhile, using the same concepts in the model, I had a teacher who used the UM's life category to analyze their immune health from deeper, consciousness-based insights into the actions of tiny cells. Without being experts in biology or psychology, everyday people were still able to garner insight and learn from the intuitiveness of the UM.

The UM's usefulness as a tool extends past everyday people. Corporations can use the UM to increase efficiency while making better moral choices. Nations can use the UM to model democracies and societies that act as minds, coming up with complex solutions to the world's problems. Issues such as climate change, which need billions of people to participate in the solution, can be better organized using the model to create the most efficient structures possible. The interdisciplinary nature of the UM will allow the scientific community and other communities to come together to study questions in more depth and breadth than possible before. Any group of people can use the UM to garner more profound insights into how they wish to structure themselves.

Just as essential, the UM can guide Humanity's explorations into technology and the Universe. AI's can be analyzed to deem how conscious they are, how to translate their thoughts, and how much suffering they may be experiencing. We can construct translators for any species of animal or biological system. For example, the UM describes how a forest may have conscious thought that takes weeks instead of seconds(as humans do). We can strap sensors onto the roots of the forest, measure the transfer of resources between trees, and map out the brain of the forest just as we use CT scans on the mind. Our technology has endless uses for the UM.

Furthermore, the UM will help guide humanity as we expand outward. The math of the UM hints at entire planets being less conscious than one human mind. For example, Mercury is a barren lump of rock with some heating transfer inside (as far as we know). The mind of a human (as far as we know) is more complicated than Mercury's random internal heat. Thus, using Mercury for resources and colonizing it will pose minor moral issues. However, if we want to colonize a water world with volcanic reactions and odd materials we have never encountered, we must study the structure of that strange planet to deem it unconscious enough to determine if we can tamper with it. Overall, the philosophical and metaphysical

applications of the UM, when combined with our progressing future, will allow humanity to steer itself in the right direction.

The UM itself is a living system now. The ideas presented here are lively within my mind, guiding me to write for hours and engineer robots. My life is in partial symbiosis with the UM, allowing it to guide my decisions and improve my life for the better, so long as I feed it knowledge and energy to calculate and improve more ideas. I am designing the basis of the UM to be like a virus but a healthy virus. It will propagate to all aspects of life, shifting its core DNA as time goes to whatever society and the experts deem is the most accurate truth. That virus of the UM will infect minds, corporations, and entire nations. As described earlier with the social organization of the UM, it may grow to be the most conscious system in the Universe, a mind encompassing all humans and living beings as its neurons, acting in the best interest of all. This UM will not be tyrannical, as the neurons (people) will democratically decide the path of the UM. The grand nature of the UM may draw comparisons to gods and demigods; people may believe that the UM is the blueprint for how god functions. Combining religion with the UM is beneficial, giving evidence to spiritual beliefs while solidifying the UM in culture. This fusion fits even better, given that many categories, such as chaos/order, had their roots in religious texts. Ultimately, the Universal Model will impact for good as long as it grows and adapts with humanity.

## Conclusion

I do not know the specifics of most of the ideas listed in the past few paragraphs. However, I have ideas on how the UM applies to their respective subjects. If you have read the previous five papers, then the potential scope of the UM will be apparent. I could write for the next few months; however, a larger group of people must have access to work on and develop the basics of the UM. Even if half of the ideas presented in the past few papers turn out wrong, there will still be dozens of valuable, tangible, and usable ideas. Living life is about change and growth. The UM is in its infancy right now, and it is ready to take the next step into toddlerhood, where it starts to build an accurate framework of the Universe.

All in all, if the Universal Model is as important as I believe it is, then our societies will be permanently altered. When I explained the Um to a teacher of mine, she said I was thinking not just outside the box, but very far from the box. With the possibilities of the UM, I learned that there is an outside to the outside of the box yet to be explored. All aspects of human experience from suffering, confusion, love, power, the hero's journey, and much more will still reign true. However, humanity gains new contexts concerning all other living creatures and ideas from combining these concepts into one model.

Many of us will live our lives with a new appreciation for the Universe and new drives to work on problems so novel and out-of-the-box that we cannot think of them today. Technology like AI to national bureaucracies may be unrecognizable, forever shifted into a better future by the insights of the UM. Society might create new art, media, apps, devices, and other works. We will understand the realities of other forms of consciousness (like hiveminds and trees). Most importantly, the UM will profoundly impact everything instead of restricting itself to one subject of study. Having a broad impact is the best way to help as many people as possible. The UM is not called the **Universal** Model for nothing! Hopefully, you will help me expand these ideas and their impacts.

Feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

# The Process of Creating the Universal Model
## By Jesse Harman Rupe
## February 21st, 2022
## Paper 7 of 7

### My Drive to Pursue the UM

After working on the Universal Model for eight years, it has become a core part of my life. I was inspired to pursue this project by many influences in my life. Video game-wise, as mentioned earlier, *Portal 2* kicked off my fascination with artificial intelligence. *Minecraft* helped foster the levels of creativity in my ideas. Another video game called *Thomas was Alone* pondered whether AI was alive too.

Shows and movies have also greatly inspired my awe of the universe. Specifically, the sci-fi show/book series, *The Expanse* fostered my imagination for other forms of consciousness. The show's worldbuilding is immaculate, and by the end of the books, it displayed the rules of the UM to a tee. All types of music have inspired me too. Anytime I listen to music, I philosophize about the Universal Model somehow. The UM would not be possible if humanity did not create such beautiful works.

Other deeper factors inspired the UM too. I have always wondered why science has yet to explain consciousness. The problem of how minds work is an essential question to answer. Answering it will answer the questions behind the meaning of life. If there were no minds to think, nothing in the universe would matter. Thus, thinking minds give the universe meaning, so we must find out how our experience of the universe forms from nothing. Since there has been no unified theory yet, I thought I might crack the problem.

Also, creating a Universal Model of analysis can help millions of people. As outlined in previous essays, the UM can be used to prove our fundamental rights, create new technologies, and find moral solutions to dilemmas. I can only dream of how other people will use the UM to do good. However, I always fear that some bad people will find ways to weaponize the UM and use its analysis potential for harm. Thus, I must create a democratic community that can control the UM's development before a tyrannical system creates its form of the UM in the future.

**Formulating the Essays**

As of now, I have spent around 55 hours writing and editing. I have my hours recorded for the past two months of writing. I started putting my ideas down on paper in mid-December of 2021. Since then, I have tried to average an hour a day of writing or research. That effort paid off immensely. Before I wrote my ideas through, I philosophized for years. I cannot count the hundreds of hours I have pondered these ideas. I have spent hundreds of hours researching on the side with random youtube videos or articles online. Overall, I have spent the past eight years formulating this project.

Throughout the years, I had a loose organization style. I jotted thousands of notes down into my phone's notes app. I would also draw out my ideas in notebooks and random sheets of paper. I still have these early drafts of the UM. In 2020, I uploaded a few page explanations of the UM onto my website: www.jhrinnovators.com. Then in November of 2021, I created a rough outline for a 70 slide slide-show to explain the UM. Then I formed an eight-page bullet-point outline for all the ideas I had relating to the UM. Since creating that rough outline, I can double the number of topics I had listed due to the avenues these papers have opened up. Finally, in December, I started the grueling task of writing.

Motivating myself to write was the main difficulty I faced. I am an engineer at heart and love hands-on problem-solving. I use CAD (computer-aided design) to 3D print inventions, make circuit boards, and code to create my wildest dreams. I have spent well over 1000 hours of my life engineering. However, I had to put that passion on pause to write these papers. Do not get me wrong; I like to write here and there. However, a 23,000+ word paper seemed highly daunting. However, I had to get my ideas on paper. The UM had been festering in my mind for too long. I also knew that with my company, JHR Innovators, I would need to combine my inventions with the UM in the future.

To start, I cleaned up the environment around me to begin writing. Psychologically, this primed my brain to feel like it was in a work environment. I started with spurts of 15 minutes of writing here and there. Within two weeks, I could work for 2 hours a day if I needed to. I made sure to leave time to relax every day, see friends, and work on school. Luckily, writing the UM

did not impair my daily life. After two months of grueling effort, I finished writing 23,000+ words.

The next difficulty I faced was the many conundrums I had to solve. Most notably, the simulation universe in *Consciousness and the UM* caused me many headaches. I partially rewrote many areas of the paper until my logic was solid. The first iterations of the mini-universe had flaws and exposed gaps in the Universal Model. The false arguments terrified me; was the UM wrong this whole time? After a week, I stumbled upon many discoveries that solidified the UM's usefulness. I rewrote many sections and found ingenious solutions to my woes. Most importantly, I embraced the interdisciplinary nature of the UM, comparing metaphors and cross-referencing various aspects of the universe from biology to politics. This mixing and matching of ideas kept the UM fresh and full of discoveries and solutions.

To keep my mind balanced, I made sure to bike and meditate on these various issues I encountered. I made sure to continue observing the real world for patterns relating to the UM. After using these practices, I am pretty confident that most of the concepts in the UM are correct. However, many are still prone to change, which is good. The UM will never be fully complete.

## Other People involved in the UM

I completed the UM at my home, community, and school. At home, I mostly wrote rough drafts. At Temescal Canyon High, I edited the paper and reviewed the papers with teachers. Then around my community and various parks, I meditated about the UM and reflected on my progress.

No single person necessarily supervised my work. My parents made sure that I enforced my own goals. They also gave me the opportunity and time to write out my ideas. Thank you, mom and dad, for making sure I pushed on and for the fantastic opportunities you have given me. Without my parents, I would not have the resources, work ethic, or ability to complete this paper. I made sure to plan for two months of writing to fulfill my 23,000+ word goal. One teacher did help me significantly, however. Barbara Hancock reviewed five of the seven essays. She has given me incredibly beneficial advice while pouring hours of her effort into reviewing

this project. I want to give a special thanks to her. Other teachers also read my work: Mr. Parks, Mrs. Lofquist, and Mr. Andrews. Thank you to all the teachers who helped review my work. I want to also give a special shoutout to Corey P. for the inspirational messages and wisdom. I want to give further thanks to my friends and others who listened to my hours of rants.

I also consider the indirect help from my various research sources invaluable. Without the great works of art, literature, and science of the humans before me, I would not have the pieces necessary to put together the puzzle of the UM. I deeply desire that the UM evolves into a full-fledged organization supported by millions of people. When others are directly involved in continuing the UM, their ideas get developed correctly. The UM is simply a new configuration of old ideas(as all ideas are), so each idea owes its credit to all the people who developed it throughout history. Thank you to all those great minds and humanity for the plentiful resources available today.

### The UM and Covid-19

Covid-19 partially hindered the progress of the Universal Model. The pandemic greatly affected my networking and learning from my peers and teachers. In Southern California, where I live, I had online school from March 2020 to the middle of 2021. Half of my sophomore year and junior year of high school was online. Thus, I had fewer interactions with teachers to work on my philosophy. I feel like the UM would be a year ahead in the timeline if Covid-19 did not pause my in-person collaboration.

However, Covid did not significantly impact the UM because I still spent that year researching and philosophizing. The turmoil from Covid inspired my drive to create new solutions to humanity's problems. The effects of globalization have hit us in the face, from internet shopping to international crises. The turmoil that Covid put upon the USA also inspired me to continue the development of the UM. I realized that humanity would need a unified theory to work off of in the future to make sense of the complex minds of Earth. The USA will need new organizations in time to replace outdated systems. Thus, once I returned to school and had the resources to interact with peers and teachers, I began writing my ideas down again.

In a round-a-bout way, Covid delayed the development of the UM but drove my effort towards the UM into hyperdrive.

All in all, I have been obsessed with "Why are we conscious?" since I was a child. Why are we self-aware? Why is my mind stuck in my head? How does the mind create experiences? Does consciousness exist elsewhere beyond animals? Through thick and thin, Covid-19 and thousands of inspirations, I have been able to piece together the borders of the grand puzzle that is the universe. The concepts described here are just the start. Hopefully, in time, billions of minds from across all aspects of the universe will be able to work on the Universal Model together. An infinite fractal of possibility has barely begun to form. May we embark on this adventure into reality together.

As always, feel free to contact me or visit JHR Innovators for more information on the model or to discuss the UM.

Thank you for reading,

Jesse H Rupe

www.jhrinnovators.com

jessehrupe@gmail.com

Works Cited

Atlearner. "What Is General Theory of Relativity? Explained." *Atlearner*, Blogger, 28 Dec. 2021,

    https://www.atlearner.com/2020/02/general-theory-of-relativity.html.

Berthold, Emma. "How Do Our Tastebuds Work?" *Science.org.au/Curious/*, Australian Academy

    of Science, 19 Sept. 2019,

    https://www.science.org.au/curious/people-medicine/how-do-our-tastebuds-work.

Brookshire, Bethany, and Tina Hesman Saey. "Explainer: How Our Eyes Make Sense of Light."

    *Science News for Students*, Society for Science, 5 Oct. 2020,

    https://www.sciencenewsforstudents.org/article/explainer-how-our-eyes-make-sense-of

    -light.

Herbert, Frank. *Dune*. Penguin Group, 2021.

Horgan, John. *Mind-Body Problems: Science, Subjectivity, & Who We Really Are*. Knot Press,

    2019.

Kurzgesagt - In a Nutshell. "How Stupid Things Become Smart Together - Youtube." *Youtube*,

    Kurzgesagt - In a Nutshell, 16 Nov. 2017,

    https://www.youtube.com/watch?v=16W7c0mb-rE.

Levin, Noah. "Ship of Theseus." *Philosophical Thought*, Tulsa Community College, 13 Aug. 2021,

    https://open.library.okstate.edu/introphilosophy/chapter/ship-of-theseus/.

McKechnie, Alexander. "Exurb1a." *YouTube*, Alexander McKechnie, 20 Feb. 2022,

    https://www.youtube.com/c/Exurb1a.

McKechnie, Alexander. *The Fifth Science*. Cosmia Press, 2018.

Meer, Hermann de. "Discrete- vs. Continuous-Time and Discrete vs. Continuous ..." *Research Gate*, 2010,

    https://www.researchgate.net/figure/Discrete-vs-continuous-time-and-discrete-vs-conti nuous-state-space-models_fig1_220053939.

"Metaphysics English Definition and Meaning." *Lexico Dictionaries | English*, Lexico Dictionaries,

    20 Feb. 2022, https://www.lexico.com/en/definition/metaphysics.

Minecraft. Java Ed, Mojang Studios, 2011.

Miracle Musical. "Hawaii: Part II." *Youtube Music*, Miracle Musical, 2012,

    https://music.youtube.com/playlist?list=OLAK5uy_kCPng04PE0tr1Lw6kaCt7-O5xk2ztqsJ w. Accessed 20 Feb. 2022.

Peterson, Jordan B. "Jordan B Peterson." *YouTube*, JordanPetersonVideos, 20 Feb. 2022,

    https://www.youtube.com/c/JordanPetersonVideos.

Peterson, Jordan B. *Maps of Meaning: The Architecture of Belief*. Routledge, 1999.

Peterson, Jordan B., et al. *12 Rules for Life: An Antidote to Chaos*. Random House Canada, 2018.

Portal 2. Valve Corporation, 2011.

"Saeculum." *The Expanse*, created by Ty Frank, and Daniel Abraham, season 4, episode 9,

    Amazon Prime Video, 13 Dec. 2019.

Tally Hall. "Good & Evil." *Youtube Music*, Quack! Media, 2011,

    https://music.youtube.com/playlist?list=OLAK5uy_kp5RujfVeR3Mk1rYzWSgCfTXbfP65Du Nc. Accessed 20 Feb. 2022.

Tally Hall. "Marvin's Marvelous Mechanical Museum." *Youtube Music*, Needlejuice, 2005,

https://music.youtube.com/playlist?list=OLAK5uy_lMjV2uSShXNLPkjgnbRhJJL_eeVtvRIY

8. Accessed 20 Feb. 2022.

Tillman, Nola Taylor, et al. "Einstein's Theory of General Relativity." *Space.com*, Space, 5 Jan.

2022, https://www.space.com/17661-theory-general-relativity.html.

Tononi, Giulio. "Integrated Information Theory." *Scholarpedia*, Brain Corporation, 2015,

http://www.scholarpedia.org/article/Integrated_information_theory.

"United States of America 1789 (Rev. 1992) Constitution." *Constitute*, Constitution Project, 20

Feb. 2022,

https://www.constituteproject.org/constitution/United_States_of_America_1992.

"United States of America." *United States of America - Place Explorer - Data Commons*, Google,

2020,

https://datacommons.org/place/country/USA?utm_medium=explore&mprop=count&p

opt=Person&hl=en.

"Whenever You're Ready." *The Good Place*, created by Michael Schur, season 4, episode 13,

NBC, 30 Jan. 2020.