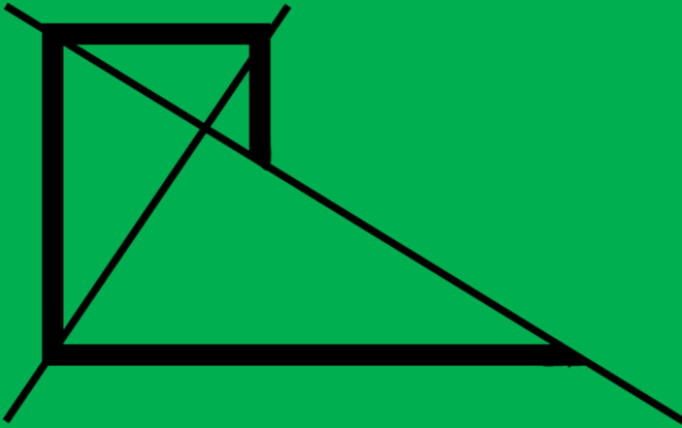# COEXISTENCE

AS THE TELOS OF HUMANITY
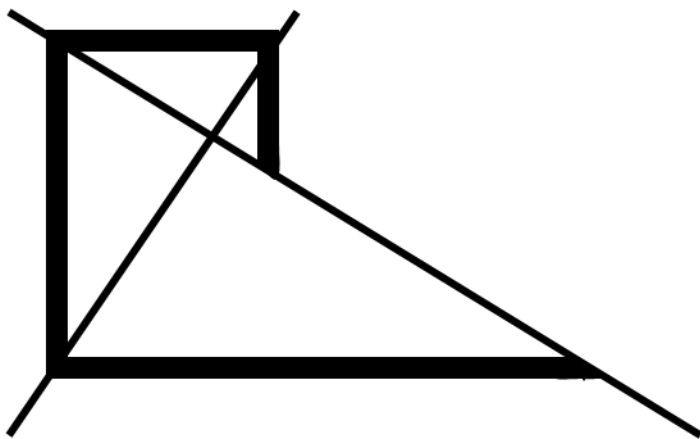### an essay on harmonic understanding

It is through harmonic understanding that the intellect within every mature person finds self-worth, compassion, and the path to harmonic coexistence with both nature and others.

David Lee Cale

COEXISTENCE

AS THE TELOS OF HUMANITY
an essay on harmonic understanding

CONTENTS

Other works by this author

The Basics of Consequentialism

The Kantian Element in the Copenhagen
Interpretation of Quantum Mechanics

A Yin-Yang Interpretation of the Quantum

The Simplest Possible Universe

PREFACE

1975 was a year that awakened me from, to use Kant's term, "my dogmatic slumber." Theretofore, I was imbued with the belief that humanity, being inherently evil, could only attain virtue through an acceptance of ethical advice, irrational to its nature.

That year I led a cultural study team to Taiwan and Hong Kong, sponsored by Rotary International. During its three-month period, I adopted the name *Kai Da li* and did as much as I could to integrate the traditional worldviews of those communities with my own. I was especially fascinated with what is popularly called *Yin-Yang* philosophy, and its core belief that the universe is ethically underwritten by a principle of equal opposites.

That same year, I acquired a first-edition copy of E. O. Wilson's *Sociobiology*.[1] This work attributed the source of human ethical behavior to evolutionary forces, and convincingly showed that, caring for others within one's own species, perpetuated the survival of the species. Succinctly stated: human virtue, to the degree that it can be found, is genetic in origin.

In the years that immediately followed, I dedicated my research to the possibility that virtue, as discovered by Wilson, might have a deeper origin in the laws of physics. I saw in Planck's constant (h), the least expression of electromagnetic energy, a fundamental principle of equal opposites. My idea, called vecton theory, turns on the belief that Planck discovered the two building blocks of our entire universe, two particles, one positive and one negative, that must always travel at that fixed speed we call the speed of light ($h = \mu^+ c + \mu^- c = p^+ + p^-$), where μ is a spacetime moment and p is a directed quantum of momentum.[2]

A stable subatomic particle can be regarded as a "field" whose constituent components are in a state of harmonic coexistence. The same can be said for stable atoms, molecules, geological structures, ecosystems, and solar systems. With this line of thinking, I concluded that when a physical system evolves into higher and higher forms of complexity, with each higher order the product of a law, created by need, from which follow rules and an orderly outcome, the system can be regarded as ethological. It is for this reason that I named the 1980 book, in which I presented vecton theory, *The Basics of Consequentialism*.[3]

A core idea in this essay, the suggestion that learning is the most fundamental activity in the universe, follows from that work. This essay defines learning as any sentient or insentient activity that creates or enhances the ability of an entity to perform a task.

Learning is a consequence of need. If one begins with a need for social communication, for example, the learning of rules that define a particular language must follow. This need, for humans as a storytelling species, inspires the learning activity of symbolic reasoning. The task to be learned, using symbolic reasoning, is how to turn spoken words into written messages such that all within one's community can link a given inscribed image with a concept. One gets a sense of ancient symbolic reasoning when one studies Egyptian hieroglyphics or Chinese characters.

Practical understanding is a product of symbolic reasoning. It underlies every activity that can be called a profession. The division of labor also creates the rise of higher levels of expertise in certain fields. The application of the rules of expertise, to a world having many variables, creates the need to learn one's possibilities. Many problems that create disharmony, even at the level found in a college dorm room, can be resolved by that learning activity called inferential reasoning. The rules, created by this learning, are studied in a field called logic. Inferential reasoning enters when it is necessary to causally explain past events or make predictions regarding future events.

From inferential reasoning comes contextual understanding. One's contextual understanding presents itself as a collection of theories and values that merge with one's practical understanding to form a worldview. It is suggested in this essay that the most common threat to harmonic coexistence arises from differences in worldviews. The need to have a worldview that is both coherent, serving one's practical and contextual beliefs without contradiction, and inclusive, respectful of all other worldviews, requires harmonic reasoning.

The learning of harmonic reasoning, the learning of how to create a coherent, inclusive, and peace-directed worldview, is another core theme within this essay. This learning is called, here, *arimatheia*. This best learning, of all learning, takes place as an openminded dialectic between two minds where both learn the other's worldview and examine their own worldview, with thought as to how it might be made more coherent and inclusive, given the other's perspective,

There is a discipline which studies the art of harmonic reasoning; it is called philosophy. Homo sapiens is best translated as philosophical human persons.[4] Yet this question arises: On what basis is it possible to create a template for an ideal harmonic worldview that is both coherent and inclusive? I stumbled upon the answer to this question when I made a proposal to the chair of my philosophy department for a course on African philosophy.

Unlike Western, Mid-eastern, and Asian philosophy, a substantial part of African philosophy's literature seeks to answer the question: What is African philosophy? This question raises a host of sub-questions nicely explored by Samuel Imbo in the first chapter of his introductory textbook on African philosophy.[5]

Should African philosophy be regarded as limited to the sub-continent or extended to include the whole of the continent? Should it begin with ancient Egyptian philosophy or the year 1729, and a now lost work by Anton-Wilhelm Amo, a Guinean-born European scholar, titled: *The Rights of Africans in Europe*?

Should it be *ethnophilosophy*, a composite of hermeneutics on Africa's spiritual and cultural traditions? Should it be sage oriented? Should its focus be political, centering on Africa's modern governance and its historic struggles for human rights? Finally, there is the professional approach, the view that African philosophy holds certain universal themes that transcend time and culture. Philosophers Kwasi Wiredu[6] and Paulin Hountondji[7] write from this perspective.

My proposed course was both approved and expanded to include Asian and Mid-eastern philosophy. This made its focus even more challenging. With the inclusion of Asian and Mid-eastern philosophy, and the interpretive diversity within African philosophy itself, I confronted the question: What is it that Western, African, Asian and Mid-eastern philosophical literature have in common, such that I can provide my students with a meaningful definition for philosophy? In my review of available options for interpreting African philosophy, I noted that, like much of Western, Mid-eastern, and Asian philosophy, each viewpoint is cast from one of three perspectives.

Sage philosophy provides the worldviews of individuals. Ethnic and political philosophy, reveals how things are seen by socially defined entities. Finally, geographical, temporal, and professional contributions to African philosophy seek to define it more in terms of a god's-eye view of human thought.

Each perspective seeks universal principles. I grouped these perspectives as self, humanity, and nature, and let their totality be called: the *world*. With these three "players" identified, I was able to create a philosophical framework for the course with nothing more than a finding for the meanings of self, humanity, and nature, and an interpretation of the proper relationship between each. Nature was defined as all things not human. This framework consisted of the twelve-questions provided on page 35. In this framework, I saw a template for a coherent worldview, using these three players as subjects (page 36).

With this model, I found my beginning students were able to quickly grasp humanity's philosophical enterprise. As each topic was covered, whether belonging to Western, African, Asian, or Mid-eastern philosophy, I easily placed it under the banner of one or more of my twelve questions.

Further, these "three players" are humanity's three rule makers. While covering deontology, the study of rules, I realized that rules can only come from one of three sources: individuals, institutional laws, and nature. Even for religions, the statement holds; since there, the laws of nature express divine will.

Over time, I used the twelve questions in other courses. With a causal analysis, the disciplines of both phenomenology and aesthetics belong, for example, under the question: How does nature, as the origin of sense data, relate to a self, as mind? However, if one takes a Kantian perspective, they belong to the question: How does the self, as "I think," relate to nature, as sense data? Business Ethics touches on questions four through nine.

Each of these twelve questions is basic to the formation of an inclusive and harmonic worldview. When each is interpreted under its category, it also represents one or more principles of understanding having the power to guide an intellect toward the formation of decisions that are harmonic and, where inclusive, also compassionate and peace-directed.

Finally, there is this question: Given its history of intraspecies violence, on what basis can humanity be considered noble? The answer can begin by noting that within the mind of every mature human being is an intellect engaged in the learning of wisdom as harmonic understanding. From such learning come the harmonic worldviews that seek to foster peaceful coexistence.

As such, inclusive harmonic understanding is the telos of all peace-directed learning. This essay is, very much, a philosophy of learning. Harmonic understanding is the goal, the telos, of humanity because learning constitutes humanity's essential way of being in the world.

For some, learning goes no further than how to meet one's everyday needs. For others it is only used to create wealth or other forms of power. These serve one's practical needs.

But mature minds take learning beyond its mundane uses and give it a contextual foundation. From this follows harmonic reasoning as arimatheia. This best learning, of all learning activities, takes place as a higher form of harmonic reasoning. In this, one's coherent worldview, created by a dialectic between one's practical understanding and one's contextual understanding, is both refined and made increasingly inclusive, through a dialectic with the worldviews of others. The dialectic of arimatheia requires use of the fundamental principles of learning.

When this takes place, humanity emerges as a society of those imbued with a love for learning the underlying learning principles of the universe. With this, one's identity transcends that of a biologically defined animal to something far greater than any identity grounded in physical being or social belonging. Given this, two points can be made regarding the question at hand.

For those who believe the Creator of the universe is a conscious being, or beings, religions take one to wisdom as an understanding of the Creator's worldview. The possession of this understanding is a valid basis for the nobility of humanity.

For those who believe the Creator of the universe is a mindless event, spatial principle, or set of principles, then one's harmonic understanding gives one, as a product a mindless physical universe, the realization that, in having a mind concerned with universal things, the minds of humanity are, collectively, the mind of the universe, at least in this place and time. This understanding, too, is a basis for the nobility of humanity.

David Lee Cale
May 15, 2022

1

Learning as the Fundamental Activity of the Universe

Current thought defines learning as a complex activity involving an external stimulus, a response in the learner guided by the nature of the stimulus and make-up of the learner, and a change in the learner. In many ways, this definition is appropriate; yet it does not apply to all learning.

There is for example: *intrinsic learning*. Intrinsic learning has many names; reflection is one, introspection another. An ecosystem's ability to preserve itself, through internal adaptations to changes in its ecological balance, is an example from nature.

However, until the nineteenth century, philosophy lacked a basis for looking to nature for methodological advice as to how to engage in the activity of learning. Pre-Darwin thought regarded learning as an activity belonging only to minds. This commonsense interpretation of learning was especially fortified by philosophy's turn to empiricism following the Renaissance.

The familiar *tabula rasa* (erased slates) doctrine, of John Locke especially stands out.[1] His view, that all are born lacking, at birth, any knowledge whatsoever, held throughout the eighteenth century. For Locke's time, it represented, in part, a rejection of Plato's notion of reincarnated intelligence.[2]

Jean-Jacques Rousseau echoes Locke in *Emile*. In this 1762 essay on education, he says: "The education of man begins at his birth; before speaking, before understanding, he is already learning... Even animals have to learn how to eat, to walk, to fly... Canaries, escaped from their cages, do not know how to fly because they have never flown." [3] But Rousseau's dismissal of instinctive knowledge eradicates a role for nature in the evolution of mind-held meanings for certain experiences.

Haunting empiricism's belief that all learning is *a-posteriori*, occurring only through experience, are longstanding insights into what medieval philosophers called *a-priori* knowledge and, today called instinctive knowledge. If a bird, with its very small brain, knows exactly how to build that particular kind of nest belonging to its species, how can it be that a human, with a much larger brain, is born with a lesser amount of knowledge? Is not acrophobia, the fear of high places, a form of such knowledge?

Raw empiricism was ultimately unable to overcome the long-held ancient Greek view that human learning builds upon a preexisting platform of understanding. Aristotle's perspective is presented in Book 1 of *Posterior Analytics*: "All teaching and all learning (μάθησις) of an intellectual kind proceed from pre-existent knowledge. This will be clear if we study all the cases: the mathematical sciences are acquired in this way, and so is each of the other arts. Similarly, with logic, both deductive and inductive, they affect their teaching through what we already know, the former assuming items which we are presumed to grasp, the latter proving something universal by way of the fact that the particular cases are plain."[4]

In *Critique of Pure Reason*, Kant also wrote in this tradition, arguing that all human minds hold pre-existent knowledge in the form of twelve pure concepts of understanding that allow us to make sense of the world. How we decide what is singular, as opposed to multiple; real and not real; possible and impossible; causal and not causal; are based upon internal structures within the mind. He called such decisions: "*synthetic a priori judgments*," in that they blend experience with instinct.[5]

In an essay titled: "*My Pedagogic Creed*," John Dewey states: "I believe that all education proceeds by the participation of the individual in the social consciousness of the race… The child's own instincts and powers furnish the material and give the starting-point for all education." He then suggests that educators utilize those instincts and powers when teaching.

"[Unless] the efforts of the educator connect with some activity which the child is [doing through] his own initiative, education becomes reduced to pressure from outside. I believe that education is a process of living and not a preparation for future living."[6] Dewey's words reinforce the contemporary sentiment that the activity of learning is a lifetime activity, richer and far more fundamental than commonly believed.

There are many ways to answer the question: What is learning? Contemporary science makes the search for an answer to this question both more challenging and more interesting than it was in the 18th century when learning was considered to be an activity belonging only to intelligent life.[7]

The idea, that even as non-living matter nature has the capacity to learn, is not entirely foreign to common sense. The term *memory* is often used, for example, in reference to the ability of an attached flexible hose to rearrange its molecular structure such that it *learns* to hold the curvature forced upon it through attachment, even when later detached.

An ontological interpretation of learning invites us to view it as something substantially fundamental to the laws of nature. Today's universities fully recognize that the activity of learning pervades every aspect of life, and have done much to broaden its meaning beyond the teaching-focused interpretations that dominated twentieth century analytics of the topic.

This chapter encourages further thought into the various ways learning can be regarded as a hierarchical activity. If it is indeed as fundamental to nature as contemporary thought believes, a broader definition is needed that includes the way nature learns. In that there is not yet academic consensus on what this definition might be; and given what is set forth in this chapter, the following is offered as a starting point:

Learning
Any sentient or insentient activity that creates or enhances the ability of an entity to perform a task

By definition, the universe is the whole of all that is. Therefore, when the universe is interpreted as a learner, its learning can only be regarded as intrinsic learning. Insentient nature, in this essay, is that subset within the universe defined and explored by physics, chemistry, and geology. Nature's process of learning is mentored by the underlying laws of the universe.

Here, it is suggested that an understanding of how the universe learns begins with the question: How does the hidden part of the universe express its presence? The answer is: through laws governing the behavior of matter and energy, or, if one prefers, of mass-energy, that allow us to predict nature's behavior. It can be said, therefore, that the universe is intrinsically lawful.

A second question rationally follows. If the universe is intrinsically lawful, how does change take place? The answer is: change only takes place when two or more entities, acting in accord with the laws of nature, converge at a common time and place. To grasp this, visualize an intersection of two streets, A & B. A vehicle linearly directed along street A at velocity v will not undergo change, as long as it does not enter the field AB simultaneously with another vehicle directed along street B. All changes in nature only take place at spatiotemporal intersections, i.e., when two entities converge at the same place at the same time.

For example, a gravitational field is, for the universe, a place, a spatial zone, where one entity can be directionally altered by another through mutual proximity in space and time. Though consciousness is not present, it is not irrational to say that an asteroid "learns" of the presence of a larger gravitating body through a change in its directed momentum.

Though an asteroid's collision with a gravitating body is not consciously planned, much can be learned from unplanned events. Further "learning" takes place, upon collision, when particles, within colliding participants, break molecular bonds while "discovering" new bonds they are forced to form. The resultant is a stable state fully in compliance with nature's laws.

For consciously planned learning, there is always a goal, a telos. On what basis can it be said that nature, in its lawful but unplanned activities, also has a telos?

It can be suggested that the activity of adjusting to the presence of another, when placed in the same location at the same time, is nature's ontological basis for learning. One can reasonably infer that such activities of adjustment are constantly taking place everywhere energy and matter are found in the universe. From these "learning activities" come *outcomes*. This chapter offers the suggestion that nature's outcomes, those that endure in time as stable states, are examples of harmonic order.

Every structure within the universe can be viewed as a harmonic state in itself, stabilized by internal harmonic rules. If a structure's internal rules are replaced by other rules, its structural identity ceases to exist. Two rocks, sided by side, represent two harmonic states whose stable relationship is spatially framed by the harmonic principle of indifference, nature's version of what J.S. Mill called: the no-harm principle. Order is present when one entity peacefully shares a given time and place with another.

However, when a needed harmonic principle is not present, the principle of equity as equal exchange or balance for example, disharmony arises. But within the chaos underlying principles emerge, as when sand settles after being stirred in water.

Etymologically, the word *telos* comes from its Greek origin with a meaning similar to the Latin word *fatum*, fate. Both can be translated as destiny. In popular use, fate is employed more for unplanned outcomes having tragic endings; while telos refers to a consciously directed life-goal. Here, the suggestion, that insentient nature has a telos, is not an effort to grant the universe a god-like personification. The debate over the identity of the Creator, the author of nature, stands outside the essential points made in this essay. Rather, telos is used in its practical sense as an outcome from a continuum of activities. If nature's activity of learning tends to produce harmonic order, that is nature's telos.

When the universe is defined as the sum of all expressions of mass-energy, i.e., particulate structures and their properties, such things as asteroids and planets become particulars, entities in their own right. These particulars can be regarded as a "field" operating under its own intrinsically held laws. For this reason and others, scientists often use field terminology to describe subatomic particles and their properties.

Each stable subatomic particle, in isolation, can be regarded as a harmonic field, analogous to a vehicle in perfect condition entering an intersection. However, when the lawful intrinsic order of one particle meets that of another in spacetime, the two fields, in a sense, become students; each must "learn" how to adjust to the presence of the other. Just as two vehicles will "learn" the directed momentum of the other and reorder their properties accordingly, upon collision in an intersection, so too will subatomic particles, atoms, molecules, minerals, rocks, planets, solar systems, and galaxies when in space and time collisions.

The task to be performed in such collisions is the restoration of harmonic order in accord with the lawful principles intrinsic to both fields. The insentient activity that creates or enhances the ability of each entity to perform this task arises from the convergence of the harmonic principles within the lawful fields of each. It is the ubiquitous presence of such collisions that makes learning the fundamental activity of the universe.

Nature's learning processes, activated by a need for two or more entities to share a common filed of space at a common time, are wholly regulated by nature's laws. It is helpful to think of nature's laws as if-then rules that function as harmonic principles.

In all spatiotemporal collisions, the ability to be created or enhanced, by each participant, is that required to both preserve one's own harmonic order while making coexistence with other participants harmonic. Because each participant, in its pre-collusion state, possesses its own intrinsic laws, the most fundamental harmonic principle is that of lawfulness.

2

Nature's Twelve Harmonic Principles of Learning

All of nature can be divided into three parts: the insentient, those structures of nature, from subatomic particles to trees, that have no ability to sense the presence of distant objects; the sentient, those that do, as when a fly recognizes and escapes the threat of an incoming flyswatter; and humans, as a species unique to all others. These three categories set the boundaries of discussion for this chapter and the one that follows.

To understand nature's basic harmonic principles, it is necessary to grasp the essence of a law.[1] *Lawfulness* is both a virtue and the most fundamental of all harmonic principles. Laws can be intrinsic, i.e., internal, extrinsic, i.e., imposed externally, or both. Human laws, for example, are extrinsic to individuals and intrinsic to the population they regulate.

The first requirement of a law is that it must have the form of a well-defined, or set of well-defined, if-then regulative rules built upon honored principles. Without these, it will not be followed.

A principle is simply a category for rules that address a category of issues. Under the principle of balance, for example, are many sub-principles. The set of general relativity principles governing orbital balance is one example; justice is another. In turn, under each of these are many rules that bring harmonic balance to relationships among participating parties.

A law's second requirement is that it must have a domain. A law passed but given no territory is not a law. For an intrinsic law, its domain ends at the physical limit of the entity it serves.

Third, a law must have temporal stability; it must endure for a meaningful period of time. A law passed but given no lifespan is not a law.

Fourth, a law must be put in a form that allows it to reach those it is to regulate. Nature solves this problem by making its laws intrinsic. A law that is passed, and quietly put in a box is not, for practical purposes, a law. For persons, a law must be intelligible, rational, to the minds it reaches. In insentient nature, electrons, for example, find the "rationality" for the laws they follow in the underlying principles governing their existence.

Finally, for a law to be a law, it must be physically empowered. A law that is not enforced is not a law. Momentum is the most fundamental force in nature. Generally, this force is called energy. From where does energy come? What propels a photon? Why must momentum be conserved? Questions, like these, form the prime mover problem posed by Aristotle.[2]

Here, the prime mover is called: *the Law*.[3] For insentient nature, its presence makes learning-processes possible. The learning-processes of insentient nature can be divided into six learning activities, or harmonic principles (*virtues*). They are: lawfulness, synthesis (oneness), sharing, reciprocation (balance), experimentation (creativity), and selection (efficiency).

Insentient nature's use of law to create enduring rules is nature's first and most fundamental learning activity. Using these rules, it learns how to mix the variables of distance, time, and mass to build subatomic particles; from which it builds atoms; from which it builds molecules; from which it builds matter; from which it builds solar systems and galaxies.

Law gives an electron its intrinsic properties, among which are rest mass, half-life, and charge. Such properties express themselves as *intrinsic laws*. From these laws come its essence, its identity. Intrinsic laws express themselves as if-then rules of reaction. From its intrinsic laws, an electron "learns" its options for reacting to outside force. For scientists, this makes an electron's behavior statistically predictable. The same can be said for a proton. Alone, an electron and a proton each exists as an internally coherent harmonic field.

However, when each is forced to share a common area of space, at a common point in time, with the other, the intrinsic properties of each must adjust for the presence of the other. During a collision event between the two particles, each becomes a "student" as it learns how to accommodate the presence of the other's lawful self-expression. In effect, the "legal" structures of the two formally independent fields must find a way to harmonize. such that the intrinsic properties of both are conserved.

In music, two sounds, sharing a common region of space at a common point in time, are in harmony if, and only if, they create a resultant sound that is pleasing to one's mind. For the particles of physics, *finding-a-way-to-harmonize* reduces to the task of "learning" how to share a common region of space at a common point in time while still preserving *the Law*, as it is expressed within each. This "learning how," this blend of *the Law* as it is individually expressed within each particle, creates a harmonic learning activity that is often called *synthesis*.

Because synthesis tends to form the most stable molecular, atomic, and subatomic structures, it can be regarded as the second of nature's most fundamental learning activities. The ability, either created or enhanced by this learning activity is that of creating a resultant particle, that is stable in time.

Using synthesis, particles create *oneness*, a whole that is greater than the sum of their parts. For electrons and protons, this oneness is a hydrogen atom.

For reasons that have to do with the gravitational properties of every hydrogen atom and their abundance in the universe, they tend to collect. Each hydrogen atom, though internally harmonic, becomes externally disharmonic as it chaotically competes for room in a three-dimensional field defined by the gravitational attraction of each to all others. A third learning activity, *sharing*, now arises from the need to bring harmony to the chaotic hydrogen field. Through sharing, each hydrogen atom acquires the ability to perform the task of forming a stable *community*.

As hydrogen atoms learn how to share a particular region of space and time with each other, the density and stability of the hydrogen community increases. The gravitational field of this hydrogen community is greatly multiplied as more and more hydrogen atoms pour in, until those near the center become intensely confined in space and time. The harmonic principle of sharing, as a descendant of synthesis, allows hydrogen atoms to bond to form helium atoms. The community now becomes a sun.

As each act of bonding converts some of the rest mass of each hydrogen atom into thermal energy, a new measure of internal chaos is brought to the sun as a harmonic field. The outward push of the thermal energy counteracts the inward push of gravitation. As a result, to retain its harmonic order, the sun consequentially acquires the harmonic learning principle of *reciprocation*.

Through this this principle, the sun "learns" how to use reciprocal trade-offs, between its outward thermal push and inward gravitational pull, to acquire internal balance. Without this fourth harmonic principle of learning, every newly formed hydrogen community in the universe would blow apart upon experiencing its first hydrogen "bomb" event and never attain the stability needed to be a sun. Instead, balanced expansions and contractions take place. These are evident in the coming and going of ice ages in Earth's history.

However, a sun's self-expression, as a gravitational field, reaches far beyond its hydrogen community. Other spatial structures, primarily comprised of metals, silicates, and ice, join hydrogen to expand the sun. It is possible most are absorbed by the sun in accord with harmonic principles of synthesis and sharing. Those, that escape that fate become part of its outer system, some as comets, some as asteroids, and some as planets.

For planets, a fifth kind of learning takes place, that through *experimentation*. At the human level, experiments are planned. Insentient nature's experiments are unplanned. Every time atoms are randomly mixed; an unplanned product is possible.

At a very fundamental level, the task, of each inadvertent experiment performed by nature, is to preserve existing states, e.g., carbon and oxygen atoms, while creating a higher state, e.g., carbon dioxide. Using the underlying principles of lawfulness, synthesis, sharing, and exchange, experimentation brings higher and higher levels of complexity to the universe. From nature's inadvertent discoveries, on its planets, come mountains, valleys, rivers, seas, ecosystems, and the lifeforms within them.

To say something is naturally selected simply means that it is able to endure in time. If one plants a thousand trees, and after ten years of abandonment, 300 are still alive, the 300 are selected-in, and those 700 not there are selected-out, without forethought on anyone's part. Insentient nature primarily uses its sixth form of learning, *selection*, to achieve stability, harmony in time. Through the learning activity of selection, nature enhances its ability to create entities that endure in time.

Selection is also used by insentient nature to group entities having similar properties. For example, if one wants to divide a scoop of sand grains into "communities" having common characteristics, all that needs to be done is place them in a jar filled with water, stir them, and let the laws of physics take over. The sand grains will naturally group in layers according to their common properties.

A sea or pond is a large population of water molecules gathered in one place by the laws of nature. The selection of location is made by the presence of impermeable underlying rock beds, the influence of the law of gravitation, and surrounding landscapes that are higher in elevation than the underlying rock. This traps water, giving the lake or pond stability in time.

Over time, seas, lakes, and ponds become enriched with calcium, nitrogen, oxygen, and hydrocarbons. Nature is continuously experimenting with ways these atoms can combine to form molecules. At some point in the past, an experiment produced a molecule that could duplicate itself.

Unlike other complex molecules, replicative molecules would tend to be selected-in because each self-multiplies. Some of these complex replicative molecules learned how to survive through periods when the atoms needed for replication were less available. They adapted to impoverished environments by surrounding themselves with materials that allowed them to capture and hold the atoms they needed for replication. This process takes the learning activity of selection to a higher level, that of *adaptation*. Combining this seventh type of learning activity with the preceding six, replicative molecules learned to encase themselves as cells. Individual cells then learned how to share and exchange atoms to become multi-celled life forms. From these evolved tissues, and from tissues evolved bodies.

Those bodies, having the ability to sense their immediate surroundings, were better able to adapt to environmental change. Simple sensory cells evolved into central nervous systems. Over time, these evolved to a point where a body could create an inner image, of the world around it, using feel, taste, smell, sound, and light. From these achievements, sentient nature came to exist.

Insentient nature's six inadvertent processes of learning, lawfulness, synthesis, sharing, reciprocation, experimentation, and selection are continued and enhanced by sentient nature's ability to adapt. With life, nature is driven by the laws of physics, chemistry, petrology, geology, and biology. Using these laws, nature acquires the ability to create sensory cells, central nervous systems, and ultimately brains. Mind is to a brain what software is to a computer. Sentient nature, as defined here, exists only where minds are present. Minds evolved through six learning activities not found in insentient nature. Here, these learning activities are categorized as adaptation, experiencing, exploration, conceptualization, remembering, and communication.

With minds, nature is able to engage in learning activities far beyond the reach of its insentient expression. With minds, the universe awakens to learn that it exists.

A mind, as awareness, first recreates, from sense data, its outside world, then responds to the knowledge created by that reconstruction in ways that meet the needs of the body. Using its imagery of the outside world, sensory perception creates an empirical worldview, allowing sentient life to be in harmony with its environment. Through sensation, the activity of *experiencing* arises, bringing to nature an eighth harmonic principle of learning. Here, experiencing is defined as those activity of a brain that blend sense data, as electro-chemical impulses, with prior knowledge, to form a harmonic unity of awareness that expresses itself as mind, as ideation and meaning. Learning, through experiencing, is a mind's most fundamental learning activity.

One can argue that the telos of insentient nature is to preserve *the Law*, which, for our universe, is that one thing conserved in all physical interactions, momentum.[4] For sentient nature, one can argue the telos of a mind is to preserve the body in which it is housed. A body serves as a device, created by complex molecules, to allow them to preserve and make more of themselves.

The complexity of a mind's worldview is proportional to the size and complexity of its underlying brain. The simplest life-forms have a worldview defined only by instinctive responses to sensory information. The test, of whether or not a creature has a mind, is based on mind's fundamental purpose. If, as one approaches a creature, it reacts before being physically touched, it has a mind. Even insects have rudimentary minds.[5]

The ability to self-move, a capacity enjoyed by starfish but not by the clams they feed on, greatly enriches learning through experiencing. Self-movement makes possible *exploration* as nature's ninth type of learning activity. With self-movement, fish and fowl can transport their sensory apparatus from place to place to find food. It is not a coincidence that in all sentient creatures, ocular and auditory functions, taste and smell functions, and mouths are located both close to the brain and at that end of the body which goes first when exploring.

With exploration, experiencing goes from a static learning activity to one which is dynamic, constantly changing in time. This ability, combined with the ability of other species to do the same, creates inter-species collisions in time and space, many associated with feeding. As a primary cause of spatiotemporal interactions among sentient beings, the activities of exploration, generally, and interspecies feeding, especially, selects-in those species with the ability to give meaning to the various sounds, smells, touch-feelings, and images experienced while exploring. This ability, called *conceptualization*, can be categorized as the tenth learning activity within nature.

Conceptualization allows a mind to give meanings to the sensory content acquired from experiencing. Because a brain is genetically created, meanings can be given to an experience both *a priori*, by genetic selection, and *a posteriori*, by private choice. Image thousands of fawns born with a wide range of genetically programmed reactions to the sound-wave patterns in their brains created by a bear's growl. Those, in which the reaction is the emotional feeling of fear, will most likely survive to pass their genetic code to the next generation.

In the instinctive worldview of a minnow, a sudden vibration in the water holds the meaning of danger; minnows scatter at a tossed pebble. This trait is found in most sentient nature. In a theater, Humans do the same at the sound of a loud bang. In a sense, such instinctive knowledge is genetic memory.

Private memories serve an individual in a way that instinctive knowledge serves a species. If a deer, injured by an oncoming car, can remember that experience, it will run from the next oncoming car, and, thereby, live to pass on its genetic code. As individual minds acquired the ability to remember experienced images, feelings, and events, an eleventh harmonic learning activity arose within nature, that of *remembering*. Remembering brings new experiences into harmony with past experiences and enhances one's ability to be in harmony with one's environment and others.

Yet, many private experiences are important to others in one's gene pool. Again, sentient life arose to give nature a twelfth learning activity having the ability to bring a species into harmony with its environment. Generally, this activity is known as *communication*. At a rudimentary level, communication might be something as simple as a scent trail, created by one ant finding a source of food, that leads others to that discovery. At a higher level, an individual fish will adjust its direction of swim to conform to that of its school. Individual birds in flight do likewise.

Communication allows one to share private experiences with both those within one's gene pool and others as well. Through communication, mammalian males and females inform each other of the willingness to mate, and authors convey to others stories and ideas of their own invention. The whole of education, marketing, and journalism is based on communication. Where harmonic communication exists, socialization is made possible. Socialization is best understood as that communication activity that brings a mind into harmonic order with other minds.

The evolutionary "learning" processes, that accompany socialization, as communication, within species, even create self-sacrifice, as when a bird draws a hawk away from its flock. Such acts of social self-sacrifice, favor gene pool preservation.

Intraspecies socialization is so impressive that, as E. O. Wilson convincingly argues, socioeconomic intraspecies ethical behavior is found throughout sentient nature. That which is called harmonic coexistence, here, already exists in nature under such headings as social symbiosis, social commensalism, and social mutualism.[6] In a loving home, a dog and a rabbit can live side-by-side. Such things are evidence that communication can overcome instinctive directives.

The natural balance within an ecosystem is premised on the unique abilities belonging to distinctive species. A lion always wins a fight with an antelope. Antelopes survive as a species by producing more offspring than lions.

Lethal attacks by a creature of nature upon a member of its own species are fairly uncommon, but do exist. Male cat behavior offers the most familiar example of "murder" in the world of animals. Male-to-male headbutting by mammals during mating season can be lethal at times.

Yet, one does not see, in nature, two armies of male elephants in parallel alignment at opposite ends of a large field, preparing to head-ram each other with the intention ending life. One does not see two flocks of crows, from the same species, flying toward each other to engage in a frenzied air-battle where each crow is obligated to honor its flock by killing-off as many crows in the other flock as possible.

Yet suppose, for a moment, that nature, through its genetic experiments, found a species whose communication skills were so advanced that a member could take its capacity, for private aggression against other species, and socialize it, within its own species. Given this ability, a community would be able to compete, not only with other species, for the fruits of its ecosystem, but with its own species as well. Intraspecies attacks, heretofore fairly uncommon in nature, would become normalized for such a species.

With this, natural selection, must now take on a new role. No longer is it enough for a mind to know what is; it must also know what can be. Communities within this new generation of minds must learn how to envision and build things nature never created, and invent things not yet seen or understood by those other minds, within its own species, whose lives and property it wishes to take. All the while, every community must also do the same, from a defensive standpoint, so as not to fall victim to their neighbors. What new kinds of learning might such a species bring to its planet? Upon what basis can such a species be saved from itself?

3

Humanity's Four Harmonic Principles of Learning

Most, if not all, cosmologies have in common the belief that the creator of the universe, however envisioned, expresses its existence, in whole or in part, through the causal laws of nature.[1] The view, here, is that nature "learns" complexity, from its causal laws, using twelve hierarchical principles: lawfulness, synthesis, sharing, reciprocation as exchange or balance, experimentation, selection, adaptation, sensation as experiencing, exploration, conceptualization as the impartation of meaning to experiences, memorization as recall, and communication as socialization.

All such abilities, held by a sentient creature of nature, can be said to constitute *instinctive understanding*. Instinctive understanding consists of genetic knowledge and abilities that allow one to meet one's basic needs.

The physical and instinctive abilities held by a fox are so substantial that English hunters cannot match it without appealing to weapons or the use of horses and dogs. In the game of foxhunt, an English sportsman, lacking those resources, will always lose to the fox. With humanity's ability to make weapons, tame horses, and train dogs, no fox has a chance of winning a game of foxhunt. From where does this human ability come?

For the higher creatures of nature, communication and social skills are used mainly to convey power, mate, inform others as to a supply of food, raise offspring, or warn those in one's gene pool of incoming threats. The vocabulary of birds and mammals is, in some cases, well beyond what one might assume. Some birds can even mimic short human phrases. Dance, too, is a form of communication. A fair interpretation of certain mating rituals, found in nature, might see them as a form of dance.

For nature, such communications are symbolic, in that, for example, a bird's screech might convey the message that danger is near, or its "dance" might convey a request to mate. Yet, in such cases, both the ability and its conveyed meaning are instinctively acquired. Said otherwise, Nature's life-based decisions are genetically based, and it is not the case that they are a product of behaviors and symbolisms consciously created by inspirational leaders and collectively accepted through stories, images, and narratives passed from one generation to the next.

Scientists might long debate whether humanity is the product of an unusual primate mouth capable of forming complex words, or the product of an unusual primate mind having the ability to join sounds, in creative ways, to create a large vocabulary. Here, it is suggested that that humanity, as a community of minds, began its divorce from its primate ancestors at that point in time when it learned how to symbolize objects using sounds, based upon experience, as opposed to instinct.

This learning, called *symbolic reasoning*, can be regarded as the thirteenth harmonic principle of learning within this part of the universe. Instinct cannot provide one with a word for roses as opposed to a word for tulips. When a community invents words that make such a distinction, its members are engaging in a symbolic thought process that can be called: empirical categorization. A culturally chosen sound, meaning tree, is an auditory symbol for a category of objects based upon empirical properties thought distinct from other objects within experience.

Symbolic reasoning can be divided into *synthetic reasoning* and *analytic reasoning*. With the ability to perform the task of categorization, using words as symbols for mentally held concepts, a mind enhances its ability to categorize, conceptualize, and communicate. The learning process starts with how to string words into sentences, that can be strung into paragraphs, that can be strung into stories, whose meaning can be understood by one's community. This is the essence of synthetic reasoning.

Minds with the ability to engage in synthetic reasoning can quickly evolve into minds with the ability to reverse its thought processes. With this capacity, minds can analyze complex things, e.g., how an elk can be cut such that it produces several kinds of meat. With synthetic reasoning, one learns how to join minerals to form rocks. With analytic reasoning, one learns how to breakdown rocks to discover the minerals within. As the flipside of synthetic reasoning, analytic reasoning begins with the composite structures of nature and then determines how, and from what, they were assembled.

Writing appears when words, i.e., oral symbols, are given visual symbols. A written word is a symbol for a spoken word, which is a symbol for a concept in one's mind, which is a symbol for an event or object originating outside one's mind. When one applies symbolic reasoning to numbers and quantitative concepts, one enters a philosophical discipline called: *symbolic logic*, a higher form of symbolic reasoning.

Mathematics and geometry fall under the umbrella of symbolic reasoning. This is why courses in Euclidean geometry and symbolic logic are extremely helpful to a grasp of higher mathematics and engineering. Every equation can be expressed using words. As an aside, it is helpful, when learning a new equation, to rewrite it as a narrative telling a story, or as an explanation put into everyday words.

Built upon the foundation of symbolic reasoning, *practical reasoning* blends synthetic and analytic reasoning to become a fourteenth level of learning that both creates and enhances one's ability to make tools and structures that nature cannot make. Most primates have the ability to hold sticks, swing on a vine, and throw a stone. Possibly, practical reasoning emerged at that point when someone employed synthetic reasoning to tie a stone to a stick, using a vine, to create a hammer. However, the discovery would have not entered the inventor's community, and generation-to-generation culture, without the platform of language.

Symbolic reasoning is embedded within its disciple, practical reasoning. Both take place within one mind. When many minds come together to share their rational solutions to a problem, practical reasoning produces, as its gift to humanity, practical understanding. Practical understanding expresses its presence in the world as the professional sciences. With practical understanding, one's community is less defined by biology. As stories are handed from generation to generation to become one's culture, practical understanding takes symbolic understanding to higher levels as well.

Narrative-based practical understanding represents the greater part of all thought used in humanity's traditional professions. From applied practical understanding came trades, divisions of labor organized and governed by individuals possessing unique professional skills. Using these skills, they created technologically based communities that used tools to plow the soil, cut trees, drop birds from the sky, conquer the great beasts of the plains, forests, and jungle, and eventually create weapons of mass destruction. Technology creates objects, that the universe can only bring into existence by evolving higher minds, like those held by humanity.

Practical understanding is empirically based; its judgments, as reasoned decisions, address what is and was within experience. Its "why" questions are limited to answers provided by the senses. Yet, as professions evolved, deeper "why" questions arose. Why is a mountain peaceful on one day and doing all it can to destroy one's village the next?

Eventually, professions arose that sought to provide answers to those deeper "why" questions that practical understanding does not address. The minds behind those professions brought to this part of the universe a *fifteenth* method for learning, called *inferential reasoning*. When applied to things of the past, it is referred to as *causal reasoning*. When applied to things of the future, inferential reasoning becomes *prediction*. Religions refer to it as *prophecy*, and call those who make predictions: prophets.

Generally, inferential reasoning expresses itself as a theory, a word whose root is in *theos*, the ancient Greek word for the gods. At some point, priestly professions evolved to serve those within their communities asking: From where did we, and the world around us, come? Possibly the roots of this question are in the human propensity to communicate using narratives that have a beginning and an end. When seeing one's life as a story, the story can be extended with the question: From where did my life come and to where does it go? This is a contextual question; it concerns the greater narrative of existence.

Physicians and theologians were likely humanity's first theorists. Every religion now serves its followers with practical advice for their physical and psychological needs, and a contextual narrative defining the causal force or forces of the universe. The accepted sciences do the same.

With practical understanding, one takes one's identity in one's profession. Most names have their etymological meaning in a trade, a profession. It is for this reason that English names like Smith, Miller, and Farmer are so common. With practical understanding, one is socially defined by what one does or how one relates to others within some socioeconomic arrangement.

With contextual understanding, one takes one's identity in an historical or cosmological narrative. In some cultures, the narrative has its roots in nature, in others, a religious or political system of thought. Names are taken from historical figures.

These higher identities, and the teachings that come with them, blend with one's bodily identity, and its private experiences, to create community-based identities. When "us" became socially defined by community-based identities, as opposed to biologically defined, as with most creatures of nature, humanity fragmented into cultures, which fragmented into regional subcultures, which fragmented into competing worldviews. The fragmentation, of the followers of Martin Luther's Protestant Reformation, into a host of competing theological perspectives, is a case in point.

Reciprocally, "them" becomes everyone not sharing one's worldview. Often, even siblings, with different religious or socioeconomic perspectives, cannot see themselves as "us." By nature, humans are not socially comfortable when around others holding an identity that stands outside their worldview. Theorists might never agree on whether "us-them" distinctions are driven by genetics, cultural differences, or both. What all can agree upon is that, given technological advancements, a sustainable future for all requires respect for the peaceful worldviews of others. The achievement of this goal requires wisdom, in all its forms.

Greek Philosophers gave the concept of wisdom two meanings. Wisdom, as practical understanding, they called: phronēsis (φρόνησις). This primarily equates to the skills one needs to effectively fulfill one's domestic and professional duties.

Wisdom, as contextual understanding, they called: *sophia* (σοφία). This primarily expresses itself as one's religious, philosophical, political, sociological, socioeconomic, or scientific beliefs. Phronēsis is the product of practical reasoning and sophia the product of inferential reasoning.

Wisdom through practical reasoning, when joined to wisdom through inferential reasoning, creates wisdom as good *judgment*.[2] *Harmonic reasoning* is a learning activity that takes place when one forces sophia, as contextual understanding, to enter into a dialogue with phronēsis, as practical understanding. Harmonic reasoning is, thus, the *sixteenth* evolved harmonic learning activity within our part of the universe. Harmonic reasoning is, in a sense, that learning process that takes one to an understanding of the meaning of understanding. The product of harmonic reasoning is *harmonic understanding*.

In its mundane sense, *harmonic understanding*, equates to good judgment. Harmonic understanding is that judgment needed to know which choices create or preserve harmony, in all its forms, and which do not. Where harmonic understanding exists, harmonic coexistence, among diverse worldviews, is possible.

Homo sapiens is traditionally translated as "*man*" that is learned (knowing), wise, or philosophical. Here, it is suggested that this equates to: "*man*" that possesses harmonic understanding.

In English, the word understanding has a variety of meanings. As a noun, it can be that mental state where one comprehends a particular field of study; it can refer to one's capacity for comprehension; it can refer to a contract with, or promise to, another; and it can represent one's opinion or belief regarding something not yet empirically confirmed. As an adjective, it can mean compassionate; one who is sympathetic to the needs of another is an understanding person.

In philosophy, it is often used in the same sense that the term, philosophical ground, is used. It refers to the most basic assumptions upon which one's worldview is built, those unquestioned fundamental beliefs that provide the firm ground upon which the foundation of one's worldview rests. When one is standing in a field, what is under one's standing?

When self-rational, one's understanding is harmonic, in the sense it provides one with a coherent worldview. Its judgments arise from a coherent synthesis of one's practical understanding, and one's contextual understanding. With this synthesis, one's beliefs and theories can only hold when coherent with the empirical knowledge defining one's practical understanding. Said simply: one's judgment, regarding any issue, requires that one knows its history, can explain the issue rationally, and can make confirmable predictions regarding its future.

But self-rational harmonic understanding, alone, is not enough, if one wants to be in harmony with others. To be fully harmonic, one's worldview must be both internally coherent and in harmony with other peace-oriented worldviews. To be fully harmonic, one's worldview must be inclusive. This first means that it must be respectful of others and nature. Secondly, it must express respect for beliefs held by others. Thirdly, to be truly inclusive, it must be compassionate.

Out of these three come self-respect, a respect for others, and a respect for nature in all its forms. Out of a blend of intellectual understanding and respectfulness comes compassion for one's life, compassion for the feelings of other persons, and compassion for all sentient life. All serve that rare thing in the universe, called mind. Only mind must endure pain, fear, and suffering.

Unless a genetic malfunction takes place, the potential for harmonic understanding exists in every human being at birth. But it must be actualized. Recognizing this, humanity came to consciously embrace a love for learning. The core mission, of every religious, educational, and social institution, is, or should be, to lead human minds to an enhanced wisdom, wisdom as harmonic understanding; for upon this rock, the edifice of harmonic coexistence is built, and the human dignity of every person established.

For insentient nature, learning is inadvertent, a consequence of *the Law*. For sentient nature, learning is genetically driven. It serves one's immediate needs for an enduring life expectancy, freedom from pain, freedom from want, freedom from fear, and freedom from rejection by others within one's species.

The ancient Greeks saw the love of learning as a virtue and called it: *philomatheia* (φῐλομάθεια). Here, philomatheia is interpreted as learning loved for the sake of achieving *intellectual excellence*, defined generally as *wisdom* and, here, as harmonic understanding.

Defined in this way, philomatheia is not a learning activity in itself, but an internal drive that serves humanity's quest for harmonic understanding, which expresses itself as a coherent and inclusive worldview. With this end in mind, harmonic reasoning becomes the best learning of all.

Because harmonic reasoning is the best learning, the highest form of learning, it is called here, as in ancient Greece, *arimatheia*. It is the learning of how to extend wisdom to a point of respect for those worldviews, of others, that are also respectful.

4

Philosophy as the Study of Harmonic Reasoning

Whether called: *self-actualization*, to use Maslow's term,[1] *universal ethical principle orientation*, to use Kohlberg's term,[2] or any of its other academic names, maturity, as the attainment of an identity that transcends both one's biological and social identities, is generally understood to represent the completion of one's growth as a human being. Historically, the standards for this attainment are set by one's culture. Whatever its root, it is linked to the mentality of service to others one embraces when one takes up a profession requiring knowledge beyond that provided by one's genetic make-up and private experiences. From this knowledge, contextual understanding emerges to create theories.

Humanity's philosophical enterprise has evolved as a device for evaluating theories. Philosophical minds, driven by their love for learning, blend practical understanding with contextual understanding. This "blending" takes place more as a dialectic where one's theories and assumptions are tested by experiences that, in turn, create new phenomena for which one's innate desire for learning demands an explanation, a contextual narrative. This dialectic constitutes what is called, here, harmonic reasoning. The task of this chapter is to suggest that harmonic reasoning underwrites that wholly human enterprise called philosophy. From this perspective, the telos of philosophy is wisdom.

One does not need a Ph.D. in philosophy to be a philosopher. Socrates was a stone mason. Every person, given a community that fosters learning and teaches the rejection of immediate pleasures for long-term rewards, has the ability to self-actualize as a philosopher. When one comes to properly understand humanity's philosophical enterprise, it can be seen everywhere.

Yet, it is beginning to appear that Kant's lament for metaphysics, found in his preface to the first edition of *Critique of Pure Reason*, might soon apply to the whole of philosophy. Philosophy, the mother of all the sciences, is becoming "a matron outcast and forsaken" by her offspring. Too many of today's doctoral graduates lack the ability to explain why the word philosophy appears on their diplomas.

In part, this lapse is due to a trend in contemporary higher education to redirect resources that once served contextual understanding toward the service of practical understanding. As a polymathic discipline, philosophy is especially affected. Over time, philosophical subtopics that held practical content took on identities in their own right, e.g., natural philosophy has been replaced by physics, chemistry, and biology. Studies of the mind are covered by psychiatry and psychology; even sociologically-oriented philosophical studies are now claimed by the sciences.

Perhaps, a deeper issue, facing the discipline, is the fact that philosophy, by its very nature, is obligated to investigate popularly accepted assumptions. No one likes having their assumptions questioned. Therefore, philosophy is not always well-received. The story of Socrates' trial and death sentence, as told in Plato's *Apology* and *Crito*, is a case in point.

As every professor knows, a multifaceted field of study can easily elude the convenience of the simple definition sought by beginning students. This is particularly true for those who seek to answer the question: What is philosophy? For many, the definition of philosophy seems unsettled. Contributing to this problem is the common practice, of those not yet trained in philosophy, to refer to a practical or ethical rule of everyday life as a philosophy; e.g., "My philosophy is to always treat others as I prefer to have others treat me." With no simple answer in sight, introductory textbooks often give the definition of philosophy only a sentence or two, usually with a reference to its etymological meaning which joins *philo*, fond of, with *sophia*, wisdom.

In their introductory textbook, *Philosophy*, Margaret Wilson, Dan Brock, and Richard Kuhns, Jr. sought to answer the question by providing interpretations of the term from well-known philosophers. Socrates, for example, tells us that philosophy is the path to the perfection of the soul, the soul equating to what we today call mind. René Descartes (1596-1650), with a departure in "I think," asserts that philosophy is established to provide a path to valid conclusions. Kant's interpretation of philosophy aligned with Descartes' view. Friedrich Nietzsche (1844-1900) thought philosophy a device to take us from judgments based on instinct to those based on reason. Frank Ramsey (1903-1930) believed philosophy to be a system of definitions and rules for forming definitions. Jean-Paul Sartre (1905-1980) saw philosophy as a tool for making us sensitive to social forces. Lastly offered is the perspective, of David Hume (1711-1776), that philosophy is a study of the laws governing human nature.[3]

Augustine foretold utilitarianism by defining philosophy as a search for the "Supreme Good" and happiness.[4] Two of the more recent themes are: philosophy is "thinking about thinking;" and philosophy is an investigation into "how things fit together."[5]

In an effort to bring academic rigor to the question: "What is philosophy?" and better clarify what philosophers do, a field of study called: *meta-philosophy* emerged in the latter half of the twentieth century. Meta-philosophy offers a forum for discussing which subjects properly belong to philosophy. Should business ethics be a course taught by philosophy professors, who tend not to know business issues, or by business professors? Do social science courses belong in the Philosophy Department's catalog of courses or elsewhere on campus? Meta-philosophy provides guidance on such questions, especially for smaller colleges, where departments cannot be as specialized, as in large universities. It serves also as a study of the history of philosophy. Perhaps, its greatest value is found in how it helps clarify the evolution of thought behind an accepted philosophical subfield.

However, the mission of meta-philosophy is somewhat challenged by its own ability to discern a host of subtopics within the very fields it seeks to unify. Accordingly, contemporary philosophy has become increasingly specialized and fragmented. The big picture is lost, belonging more to a philosophy department's schedule of courses. The disciplines in philosophy have become so specialized that doctoral programs, to be effectively taught, require professors who have dedicated much of their academic life to a specific field of philosophical research.

With philosophy's fragmentation into subfields, a new category of courses appeared that can be called: "philosophy-of" courses. Each, though specialized, must have at its core that element of traditional philosophy that allows the course to be called a philosophy course. This core element serves one's search to define philosophy, in that it provides a topic with that identity which allows others to recognize it as a philosophical subject.

Here can be found a clue to the answer to the question: What is Philosophy? What do all "philosophy-of" courses have in common? Although, philosophy-of courses place a much greater emphasis on contemporary thought, the field does provide philosophy students with insights into how philosophical thought is relevant to disciplines outside the philosophy department. There exists, for example, philosophy of animals, war, education, art, history, law, film, and so forth.

The introductions to these "philosophy-of" courses tend to have in common four areas of discussion. Usually, first covered is the history of views on why or how the object of study came to be; the factors that gave it birth.

This history can be called its etiology; its causal reason for being. This is followed with the history of views on how it should be defined; what properly belongs under its categorical umbrella and what does not. Attending this is usually a discussion on methodologies, chiefly those used to establish the ambient beliefs applying to the topic.

With its importance, history and methodologies addressed, the course's issues are presented. These are, for the most part, the current debates within the object of study. In particular, they concern how various subtopics relate to more traditional themes within philosophy. These themes are many, but can be grouped as discussions on its ontological, ethological, sociological, or epistemological aspects. Finally, there is often the mention of the topic's meta-questions, those that might arise within its field of study given emerging trends.

All this comes together to inspire the suggestion that the answer to the question: "What is philosophy?" arises from an interplay between those things known empirically, standing within confirmation, and those believed to be true, but beyond the reach of empirical confirmation. Philosophical research seeks contextual narratives that are supported by experience. This is the essence of the dialectic between practical understanding and contextual understanding that underlies harmonic reasoning.

Philosophy has, also, long been identified with the question: What is truth? The ancient Greeks used the word, *aletheia*, for both truth and reality.[6] Their discovery, that the empirical world, held by consciousness, is but a reproduction of a world outside the mind, created, for some, a three-tiered reality. Plato's famous *Parable of the Cave*, in the eighth chapter of his *Republic*, provides insight into this viewpoint.

In that dialogue, the world, as seen by a mind, is compared to shadows on the walls of a cave created by individuals walking past a bonfire. Minds are said to only see the shadows. The creators of the shadows and their objects are analogous to the physical realm of everyday life. Beyond this, is the bright world outside the cave wherein dwell the gods. A contemporary Plato might begin with a mind's image of a color; then go to an object whose material possesses the ability to emit the light waves associated with that color; and, finally, to a theory of photons which reduces light to massless space and time wavelengths.

A social culture can be defined as a population sharing a common worldview. In most cultures, social acceptance is tied to an acceptance of its worldview. In extreme cases, a heretic, a mind that rejects religious consensus, is subjected to excessive punishments, even death. Dogmatism ends learning. In isolated cultures, a worldview can endure, unchanged, for centuries. But what happens when a mind becomes exposed to multiple cultures and finds the accepted theories of its culture rationality rejected by another culture?

As a centrally located place with many ports, at a time when the countries along the Mediterranean Sea were discovering the advantages of trade and advancing shipbuilding technologies, Greece, in the sixth and fifth centuries B.C.E., was exposed to the ideas of many cultures. Specifically, it can be argued that Western philosophy was founded on May 28, 585 B.C.E. On that day in Miletus, a solar eclipse, predicted by Thales occurred.[7]

Miletus was a thriving city in ancient Ionia, the regional name once belonging to the islands and coastal area of the most western region of Greece. Possibly, Thales had tapped the esoteric knowledge of the priests of Egypt. The algorithms for predicting solar and lunar eclipses are not all that complicated and it would seem, for example, that after carefully observing the god Ra, the sun, for over three thousand years, the priests of Egypt would have had all the information necessary for a solar event table. Thales' prediction overturned the consensus that eclipses occur by the whim of gods. In doing this, he secularized inferential reasoning. With this, humanity's search for understanding became more inclusive; natural laws needed to be understood as well.

With the advent of philosophy, harmonic reasoning arose as the learning of how to understand understanding, so as to create a coherent and inclusive worldview. Using philosophy and the sciences it inspired, universities evolved to make the sciences of humanity coherent, and the communities of humanity inclusive. With this, they give *arimatheia* an academic foundation.[8]

5

Harmonic Understanding as a Culturally Coherent Worldview

All sentient nature has an empirical worldview, a sense of living within a defined environment and possessing an inventory of if-then reaction rules. For humanity, a person's, institution's, or culture's *worldview* is essentially a narrative that tells from where the world came, describes what it is, and provides the values one should have while living within it. Worldview, in this sense, has its etymological roots in German philosophy, particularly the concept: *Weltanschauung*.[1]

Weltanschauung refers more to a culture's interpretation of global and cosmological forces. In an expanded interpretation, worldview refers to the totality of norms and beliefs held by a culture, institution, or individual. Its essence is found in every language in the world by translating the word: belief.

A human worldview is complex, having subsets often called doctrines. One such doctrine, that of animalism, the belief that a human being is best defined as an intelligent primate, blinds one to those learning activities conducted only by humans.[2] One's worldview is greatly impoverished when one interprets all human interactions as driven only by biological and social identities engaged in an ongoing competition for world resources.

Against the doctrine of animalism, one might note that the daily life of every person is filled with attempts to bring one's activities into harmony with one's own good intentions, one's surroundings, other persons, and one's responsibilities. Even children, when playing with a beloved pet, might ask it: "What do you want?" The task of philosophical ethics is to teach persons how to best formulate and actualize their own good intentions.

The ultimate goal, of philosophy's investigations into harmonic reasoning, is to use it to achieve wisdom. For empiricists and pragmatists, wisdom is fully achieved with the attainment of practical understanding, the virtue of good judgment in making decisions that serve the basic needs of one's self, one's family, and community.[3]

Theologians, historians, cosmologists, theorists, and others more philosophically inclined, hold that practical understanding must be informed by contextual understanding, by narratives that explain why things are as they are. Therefore, for harmonic reasoning to achieve wisdom, it must employ a philosophical dialectic between pragmatic and theoretical perspectives.[4]

Chapter Four closed by suggesting that the learning of how to achieve a coherent and inclusive worldview is the best learning (arimatheia) of all learning. Yet, the term harmonic understanding was not used. The key point in this essay is that traditional praxis vs theory debates can provide one with wisdom as a coherent worldview, but not necessarily one that is inclusive.

With a coherent worldview, one possesses a particular interpretation, of self-understanding, human understanding, and scientific understanding, that is internally non-contradictory. Its narratives and behavioral proscriptions are rationally aligned with the assumptions that underlie the worldview. All those who adopt a particular worldview's assumptions, narratives, and way of life form a culture. Most cultural worldviews are internally inclusive. However, when one culture is forced to share a common region of space and time with another, even slight differences in historical, political, socioeconomic, or behavioral habits can lead to strife.

The practical and contextual wisdom, coherent to one culture, can be incoherent to another. A higher form of wisdom is required if harmony is to be maintained in the face of cultural differences. The term: harmonic understanding is introduced, here, as that expression best capturing a higher form of wisdom, wisdom that is both coherent and inclusive.

The challenge, with the concept of harmonic understanding, is that it is both intellectually based and virtue based. It must be achieved one person at a time.

No one has the power to make the entire world a better place. Some have the power to make their part of the world a better place. All mature human minds have the ability to make themselves a better place. In making one's self a better place, one contributes, at least in small part, to the lessening of the want, fear, and suffering that exists in the world.

That greater goal, variously called: utopia, social justice, world peace, and coexistence, cannot be imposed, as totalitarians believe, through a forced universal acceptance of this or that particular worldview. Worldviews will always be diverse. But what is achievable is a coherent and inclusive worldview by one's self, that is respectful of other worldviews, especially those also dedicated to making the world a better place for all.

Culturally accepted worldviews that advocate violence are rare. Those that advocate peace are common and deserve respect, even if one disagrees with one or more of their religious, socioeconomic, political, historical, or scientific assumptions. An examination of most worldviews will reveal that their followers see their own worldview as offering the best path to peace.

A study, of the world's religions, provides insight into how worldviews have been historically structured. Most provide a framework for self-understanding, human understanding, and cosmological understanding. The suggested questions, in the worldview template offered here, are answered by most cultural worldviews. All of today's accepted worldviews have in common a lawgiver. For religions, the lawgiver is God, a person in communication with God, a pantheon of gods, or a supreme force. For the sciences, the lawgivers are found in nature's laws, or, in Kant's view, how a mind makes sense of experience. For most socioeconomic worldviews, the lawgiver is either a respected theorist, a community of such theorists, or a government.

Finally, there is the recognition that every person is a lawgiver in the sense that every person makes rules concerning their own daily activities. All of these lawgivers can be grouped as: the self, humanity and nature. But in what way does this categorization of lawgivers support the view that humanity's worldviews have evolved, over the centuries, toward intellectual coherence and a deeper sense of inclusiveness for others and for nature?

Perhaps, the best way to answer this is for one to think-out one's own worldview. To grasp a three-lawgivers approach to portraying harmonic understanding as a coherent and inclusive worldview, introspection provides an excellent start; the most immediate lawgiver is one's self. All persons have rules of their own making that govern such things as: self-discipline, how they want to be treated by others, what foods are better, and what their short-range and long-range goals should be.

Upon leaving the privacy of one's mind and entering one's social environment, one soon confronts laws created by other human minds. In some cases, humanity presents itself as one person; in others, it confronts one as social arrangements, empowered institutions, or government.

Less accommodating to one's private will are the laws of nature. The laws one makes for one's self are, first of all, subject to that ever-nagging product of nature called: one's body. The body makes such rules as when and what one should eat, how high one can reach, when one should sleep, and how long one can live. One's body exists in a sea of other laws of nature, like those of gravity and inertia. A violation of these laws can lead to death.

In thinking-out one's own worldview, it is helpful to ask: What is the essence of these three lawgivers and how does each relate to the other? This creates twelve questions that can serve as an outline, a template, for one's own worldview. One will find, in reviewing these twelve questions, that one's own religious, social, economic, scientific, and cultural beliefs, when collectively assembled as one's worldview, has answers to all twelve.

THE TWELVE GREAT QUESTIONS ANSWERED BY MOST
WELL-DEVELOPED CONTEMPORARY WORLDVIEWS

1. Who am I? - What is the essence of my existence as a unique person?

2. What is humanity? - What is the essence of my surrounding social arrangements?

3. What is nature? - What is the essence of my surrounding physical world?

4. How should I, as mind, best be in harmony with my physiological and psychological self?

5. How should I, as an individual, best be in harmony with humanity, individually, or structured as formal organizations?

6. How should I best be in harmony my material surroundings?

7. How should we, as a formal human institution, best be in harmony with those it was created to serve?

8. How should we, as a formal human institution, best be in harmony with other formal human institutions?

9. How should we, as a formal human institution, best be in harmony with our environment?

10. How does the physical world, as insensate being, relate to me as a conscious being?

11. How does nature, whether as an unseen force, insentient matter, or sentient life, relate to humanity?

12. Upon what underlying principles, as revealed through the sciences, does nature relate to itself, internally?

Most university philosophy department programs, in one way or another, address all of these twelve questions. A case can be made that most universities address them outside their philosophy departments, as well. All one needs to do is take the syllabuses of all courses offered at any university, and one will find that most address at least one of these twelve questions.

Yet, all twelve questions have in common a lack of universal agreement on their answers. For many, proper answers are limited by the amount of scientific knowledge held by one's generation. At the least, it can be said that when one has an answer to each of these twelve overarching questions, and one's intellect determines that no answer contradicts another, one has a coherent worldview.

When these twelve questions are arranged as a spreadsheet, as shown below, seven areas of understanding emerge. They are: self-understanding, human understanding, scientific, or cosmological understanding, ontological understanding, ethological understanding, sociological understanding, and epistemological understanding.

THE 3 RULE-MAKERS WORLDVIEW TEMPLATE	Self Understanding	Human Understanding	Scientific Understanding
Ontological Understanding	What is a self? (as body & mind)	What is humanity? (as institutionalized)	What is nature? (as all not human)
Ethological Understanding	How should self relate to self?	How should self relate to humanity?	How should self relate to nature?
Sociological Understanding	How should humanity relate to self?	How should humanity relate to humanity?	How should humanity relate to nature?
Epistemological Understanding	How does nature relate to self?	How does nature relate to humanity?	How does nature relate to nature?

Still, coherence is not enough. Each of the twelve questions in this worldview template can be answered with culturally coherent answers, and still be rational to a culturally-centered mind. For a worldview to be truly harmonic, it must also be inclusive.

There are two reasons why one should make one's worldview inclusive. First, self-centeredness alienates one from insights held by others. Second, when one's worldview is entirely self-centered, one's persona affirms, rather than refutes, the doctrine of animalism. One overcomes the accusation of animalism by giving nature's learning virtues an intellectual, rather than biological, definition. How this is done is the subject of the next chapter.

6

Harmonic Understanding as a Coherent and Inclusive Worldview

Regrettably, human history, given its legacy of social unrest, crime, enslavement, and warfare, seems to support animalism's dismal interpretation of humanity as an advanced primate whose intellectual activities are wholly dedicated to serving the dictates of its genetic code. Yet, with a biological identity, intra species attacks, in nature, are unusual, relating more to mating behaviors. The doctrine of animalism cannot explain why human family members fight family members, human gangs fight gangs, tribes fight tribes, states fight states, and empires fight empires.

Might it be that humans take their real identity, not in their genetic make-up, as animalist believe, but in the worldview given them by way their intellect seeks to create a coherent worldview? If this is the case, all approaches to creating human coexistence, in the sense of world peace, must confront this reality.

Theological and philosophical perspectives seem to already have a grasp of this possibility. They tend to provide individuals with a higher identity; one that goes, not to bodily attributes, social affiliations, profession, or larger institutional memberships, but to something that transcends all of these. They create worldviews where one can have a social membership with God, or gods, or a community of individuals in communion with the supreme principles of the universe.

Of interest, here, is that, historically, even a religion fights another religion when linked, by powerful leaders, to a political or socioeconomic institution.[1] Those, who take their identities in dogmatic worldviews, they believe coherent, can see those not holding their worldview as irrational and inferior. They see them as belonging to another "species." "They are not us."

For this reason, human nature is not comfortable around others holding a different worldview. Even young minds, whose worldview is still inchoate, sometimes seek "safe zones" where they are free from having to be around others not sharing their race, their religion, their interpretation of gender, their social values, or their favored socioeconomic theory. For too many, their greatest fears imagine not wild beasts, the ravages of storms, nor even disease, but rather how humans might harm them. From where does the human nature that inspires this fear come?

Dogmatism, and the bigotry that attends it, sets-in when a mind, as "I think," ceases learning, in the belief its worldview is the pinnacle of all understanding. Its answers, to the great questions addressed by its worldview, are self-accepted because they are peer accepted. With this they become dogma, truths that stand above the right of anyone to question them. With dogma, political, religious, and social leaders are infallible. Everything said must be accepted as truth. Those who defy their truths are heretics or traitors who must be converted, silenced, destroyed, or in some way cancelled. Such is the nature of human history.

It would seem, therefore, that harmonic coexistence is not the true telos of humanity. It would seem its future cannot escape segregation at the local level and balkanization at the national level. It would seem that unrelenting intra-species warfare is the only option available to the future of humanity.

This option lost its acceptability on the morning of July 16, 1945, New York time. On that morning two births took place that would come to support humanity's longstanding hope that harmonic human coexistence is feasible. The one is trivial; it was the birth of the author of this essay at Columbia University Medical Center. The other is enormous; it was the birth of the atomic bomb at Trinity Site, New Mexico.[2] As the lives of each evolved, it became increasingly evident that one person, with autocratic power and hundreds of nuclear missiles, could destroy hundreds of cities, taking millions of lives, in a matter of minutes.

Our advanced intelligence has deconstructed our ability to identify as a biological species. Being biologically human is something we wish to escape. We see humanity, generally, as self-serving, foolish, and corrupt. Therefore, we tend to take our identities in professional roles whose context is provided by social, religious, political, economic, or educational institutions that we see as standing above all others. These institutions then become our "species." Their worldviews define who we are.

At the noble end of this mindset, through acts of charity and teaching, the self-superior seek to convert the unfortunate, those who do not possess their ideal worldview. Through missionaries, they seek to institutionalize others in their own image.

At the barbaric end of this mindset, the self-superior seek to rid the planet of those lowlife humans not yet evolved to the level of their own institutional worldview, and repopulate it with minds having their own enlightened worldview. The purges of Hitler and Stalin are excellent examples. With this kind of thinking, wars, whether at the street level or the international level, are welcomed as an opportunity to engage in local or global cleansing.

Opposing this mentality is what can be called: *The Inclusive Movement*. Its roots are ancient. The inclusive views, of Jesus of Nazareth, regarding lepers, prostitutes, the poor, Samaritans, gentiles, criminals, and tax collectors, serve as an excellent example of ancient inclusive thought. Today, we speak of social justice, equal opportunity, racial equality, gender equality, and equal respect for all, as a way of advancing inclusivity.

The concept of inclusivity is still being defined at the time of this essay. Institutionally, it refers to equal access by all persons, regardless of gender, race, ethnicity, or religion, to participation in all things public institutions, whether business or government, have to offer. However, it is increasingly recognized that there must also be an intellectual foundation for inclusivity. A goal of the essay is to offer harmonic understanding, as defined here, as a candidate for such a foundation.

Harmonic understanding is, essentially, that wisdom needed to know which choices create or preserve harmony, in all its forms, and which do not. The worldview template, offered in the last chapter, provides nine overarching relationships that need to be harmonic. Under the umbrella of each are a multitude of sub-relationships having requirements for harmonic coexistence.

Intellectual inclusivity, is a broader concept than social inclusivity. In social inclusivity there is an admitting population and an admitted population that, for a peaceful synthesis, require a *harmonic cultural contract*. Without such a contract, the composite community will fragment into opposing identities engaged in ongoing competition for existing resources.

Intellectual inclusivity is concerned with what is needed for human minds to create, enhance, or meaningfully participate in harmonic arrangements, with those outside one's cultural contract. As a starting point, it can be said that the first step toward intellectual inclusivity is to make harmonic coexistence the telos of one's worldview. If one's life-goal is to come to understand how to make every decision have a harmonic outcome, then one is intellectually obligated to understand the worldviews of others.

The previous chapter offered twelve great questions that frame many, if not most, philosophical worldviews. The problem is that one can formulate answers that coherently serve the noble mindset of institutional superiority, or worse, coherently serve its barbaric mindset. On what basis can one create a worldview that is both coherent and inclusive, such that every peaceful worldview is treated with that level of respect that allows it to exist in accord with its own internal rationality? This essay proposes that the sixteen categories of learning activities, identified here, can serve as an excellent basis for such a worldview.

The catch is this: virtues belong to persons. They only belong to institutions to the degree they belong to its members. Let us imagine every person belonging to one institution, our institution, we humanity as a society of learners. What are our virtues?

1. Lawfulness

The learning, of how to achieve harmonic coexistence as harmonic order within a given spatiotemporal field, requires the virtue of lawfulness. As a coherent learning virtue, lawfulness expresses itself as self-discipline. With the trait of self-discipline, one is able to create enduring self-rules that empower one to forego immediate pleasures for the distant rewards that serve self, family, community, and harmony with nature.

In some coherent worldviews, government is seen merely as a convenient tool for directing, to one's own control, wealth, goods, and services, produced by others. Against this stands lawfulness, as the inclusive learning virtue of integrity, where human laws are expected to integrate the traits of honesty, honor, and reliability. From inclusive lawfulness, all other learning virtues, needed for achieving harmonic coexistence, follow.

2. Oneness

The learning, of how to achieve harmonic coexistence as harmonic order within one's complex self, requires the virtue of oneness. The meaning of oneness emerges when one considers why the words "person," "self," and "one" are interchangeable. In insentient nature, oneness is achieved when two laws, or two or more entities, take on a common identity. A person's identity is a composite of many identities. Some are biologically given, some privately given, some socially given, and some given by one's worldview. One's virtues are a part of one's identity. As a coherent learning virtue, oneness expresses itself through those activities that create or enhance one's ability to perform the task of synthesizing one's many identities into a harmonic whole.

This learning activity is most easily seen when one considers those times when one took on a social identity, a professional identity for example, and then came to the conclusion: This is not who I am. Those who hold the virtue of oneness live lives where every self-accepted identity is in harmony with every other.

As an inclusive learning virtue, oneness seeks to see in others, of differing worldviews, such traits as integrity, decorum, composure, loyalty, and dedication. To be able to appreciate these traits in others, one must first see them in one's self.

3. Cooperativeness

The learning, of how to achieve harmonic coexistence as the peaceful sharing of space, time, or property, requires the virtue of cooperativeness. With synthesis, one loses one's private identity to a larger identity. As the flesh of a fish is consumed by a shark, its fish identity is lost as its molecules combine with those of the shark. There is no sharing. In the activity of sharing, one's private identity is kept as properties or spaces are shared.

As a coherent learning virtue, cooperativeness expresses itself as the sharing of space, time, property, and information with those sharing one's worldview. Disharmony arises when one party employs rules of sharing not used by others. As an inclusive learning virtue, cooperativeness builds strength through numbers, as diverse worldviews seek to learn from each other.

4. Fairness

The learning, of how to achieve reciprocation, as balance, justice, equal exchange, or honor, requires the virtue of fairness. With private sharing, one retains ownership of one's private properties even as others use them. Often, it is more efficient for two parties to exchange properties, rather than share them. As fair exchange, reciprocation, is the most fundamental learning activity within commerce. This is why professions were called trades.

Fairness, as a coherent virtue is even found in insentient nature where reciprocation creates fairness as balance. Newton's third law, essentially states that when one entity exerts force on another, that entity will exert an equal and opposite force on the initiator. This law is harmonic in that it brings stability to many physical systems within nature.

As a coherent human virtue, reciprocation often arises as retaliation when one is confronted by an unwanted intrusion. If an intrusion is wanted, balance requires an expression of appreciation. For everything voluntarily received, something of equal value to the giver should be given. Often, a thank you is enough. In Asian cultures, every gift, no matter how small, is always taken with two hands, as a way of saying: I value your gift.

As an inclusive learning virtue, reciprocation creates or enhances one's ability to perform the task of building trust with those outside one's community. With trust, come the fair exchanges needed to create or enhance one's ability to perform those social and economic tasks needed for the creation of a fair and balanced inclusive world.

5. Creativity

The learning, of how to achieve one's possibilities, requires the virtue of creativity. This virtue expresses itself as both initiative and experimentation. Experimentation stands behind every great technological advancement. In insentient nature, experimentation takes place inadvertently. In sentient nature, one can see this virtue when, for example, a squirrel experiments with various ways of reaching a bird feeder.

As a coherent learning virtue, creativity expresses itself as art. As an inclusive learning virtue, creativity expresses itself as that mental activity called imagination. With imagination, one has the ability to discover available possibilities for achieving harmony with one's self, others, and with nature.

6. Responsibility

The learning, of how to select from among one's possibilities, that option that best serves self-stability and harmonic coexistence with others and with nature, requires the virtue of responsibility. Responsibility is the measure of one's maturity, and the foundation of effective leadership.

As a coherent learning virtue, responsibility creates or enhances one's ability to perform the task of selecting that option that best serves one's self and community. Responsibility, which has within it the practical virtues of productivity, efficiency, safety, and accountability, further directs one to actualize one's selected option. To achieve this, selectivity uses standards. For insentient nature, the standard for responsibility is stability, the ability to endure over an extended time. For sentient nature, responsibility is genetically directed.

As an inclusive virtue, selectivity is guided by values that lead one to take responsibility for others, outside one's community, and for the environment shared by all. Responsibility finds its pinnacle when harmonic coexistence becomes what one values most. Self-responsibility breeds good health and peace-of-mind. The valuing of social responsibility breeds harmonic coexistence.

7. Adaptability

The learning, of how to adjust, to unforeseen intrusions into one's existing harmonic order, requires the virtue of adaptability. Sentient nature achieves adaption over centuries through genetic modifications. Humans achieve it intellectually.

As a coherent learning virtue, adaptability inspires the learning activity of adaptation, which creates or enhances one's ability to perform the task of adjusting one's plans in the face of unforeseen factors or events. Adaptation allows one to survive through the learning of how to modify one's properties and behavior in ways that make one be in harmony with one's culture, other cultures, and one's environment.

As an inclusive learning virtue, adaptability, as the twin virtues of tolerance and patience, serves harmonic understanding, and its quest for harmonic coexistence. Both are the enemy of anger. Without both, harmonic coexistence will lack the intercultural lubrication needed for the gears of cultural interactions to work in harmony.

8. Sensitivity

The learning, of how to know one's surroundings, requires the virtue of sensitivity. When products of nature possess sense organs and a central processing system, that unify their collected data into a coherent image, called mind, those minds possess the pragmatic learning virtue of sensitivity.

As a coherent learning virtue, sensitivity serves a wide span of learning activities. There, it is the learning activity of experiencing where a mind comes to know its immediate environment, and recognize threats and opportunities within it. It also allows one to move effectively through one's surroundings.

As an inclusive learning virtue, sensitivity serves harmonic understanding by expressing itself as compassion. Compassion is a sixth sense, more an intellectual sense of experiencing suffering when another suffers. Though a case might be made that it is instinctive within higher forms of life, only for humans does compassion extend beyond familial relationships. Compassion is the way one's pure intellect expresses love.

9. Curiosity

The learning, of how to extend one's knowledge beyond that already held, requires the virtue of curiosity. As a coherent learning virtue, curiosity is found in sentient nature. Curiosity serving self-interest is, therefore, instinctive to humans. It inspires travel. It can take the virtue of creativity to new heights. Curiosity leads one to explore one's horizon for threats or opportunities that relate to one's innate need to: be free from pain and acquire pleasure; be free from fear and acquire power; be free from want and acquire wealth; and be free from social rejection and acquire popularity. Rational curiosity exposes strangers to scrutiny.

As an inclusive learning virtue, a higher curiosity emerges within humanity as philomatheia. This is that love for learning, for the sake of wisdom, as the possession of a worldview that is both intellectually coherent and inclusive.

Inspired by philomatheia, mature human minds take learning beyond the goals of pleasure, power, prosperity, and popularity to the goal of understanding the essence of understanding. With this, one acquires a philosophical   identity. With this higher sense of self, one directs one's wisdom to the achievement of harmonic understanding so as to enjoy harmonic coexistence with others.

10. Discernment

The learning of how to make fine distinctions, so as to enhance one's ability to properly categorize the many concepts within one's knowledge, requires the virtue of discernment. The root of discernment is in sentient nature's capacity for conceptualization. In this, a mind turns objects encountered through experience and exploration into mental images, ideas that are given meanings. As a coherent learning virtue, discernment allows professionals to recognize and work with those fine distinctions that distinguishes them from others less informed.

As an inclusive learning virtue, discernment serves harmonic understanding by expressing itself as tactfulness, even diplomacy. Diplomatic discernment allows one to make those fine distinctions needed to mediate disputes, where worldviews differ.

11. Recall

The learning, of how to remember things learned in the past, requires the virtue of recall. With recall, one knows one's private history. Recall allows a squirrel to know where it buried its acorns.

The value of recall, as a coherent learning virtue, as a virtue that helps one erase contradictions within one's worldview, is readily seen when one imagines a life where every experience, and everything learned, is immediately forgotten. Much of humanity's superiority, over all other sentient beings, is found in its ability to augment recall with symbolic images, writing and pictures, for example. When one creates a diary or private photograph, one's present self is creating a message to one's future self.

As an inclusive learning virtue, recall expresses itself as the love of history. Those lacking this love will fall short in their grasp of human and scientific understanding. There is no English word for the love of history. Here, the word *philosuggraphy* is offered as a calque, using the ancient Greek words for love and history. Harmonic coexistence requires respect among worldviews. To understand other worldviews, one must also understand the historic narratives that helped shape those worldviews. This understanding comes easiest to those who love history.

12. Respectfulness

The learning, of how to peacefully interact with others, requires the virtue of respectfulness. As a coherent learning virtue, respectfulness presents itself as communicativeness, from which follows the virtue of sociability. This virtue's core brings harmonic coexistence to schools of fish, flocks of birds, and herds of mammals. In nature, where communication is not possible, respectfulness shrinks to wariness, the kind given a bear encountered in the woods. At the human level, coherent respectful communication fosters learning through dialogue. Those, who exhibit congeniality and collegiality, are more likely to rise to positions of leadership than those who lack these traits.

As an inclusive learning virtue, respectfulness expresses itself as reverence. Where the candle of reverence is lit, the darkness of arrogance vanishes. Respect for others and for nature goes to the heart of harmonic understanding because it is essential to opening one's mind to truths held by others. Diplomacy, decency, volunteerism, and patience are sociable traits that demonstrate respect. Respect for nature is found in reverence, and, if another coin is permitted here, *environmentality*, the love of nature as it is.

At birth, we all are given a beautiful planet on which to live, and the reality that none of us chooses our physical attributes, culture, or economic status. Why can this commonality not be the foundation of our respect for each other?

13. Symbolic Understanding

The learning, of how to orally communicate complex ideas, read, write, employ the mechanics of geometry and mathematics, and engage in symbolic logic, requires the virtue of symbolic understanding. This is the most fundamental of four uniquely human learning virtues. Without it, the other three cannot follow.

14. Practical Understanding

The learning, of how to translate one's symbolic understanding into non-instinctive skill sets, requires the virtue of practical understanding. In sentient nature, professional roles are assigned by instincts. Most ant and bee colonies create individuals having specialized abilities not had by all. To a degree, this is also true for humans; not everyone has the agility to be a great gymnast.

Yet, only humans have the capacity to create skilled professions, enhanced by an ability to make and use tools. With symbolic understanding as a platform, practical understanding can be passed from one generation to the next.

As a coherent learning virtue, practical understanding enables one to learn how to focus one's strengths on tasks that serve the human needs to be free from pain, fear, want, and social rejection. With practical understanding, humans are able to create tools, with which they create goods and services, with which they create roads and buildings, with which they create cities, with which they create states and the governments that regulate them.

As an inclusive learning virtue, practical understanding equates to the ability to enhance rationality's symbolic reasoning with analytic and synthetic reasoning. With analytic reasoning, ideas and objects are broken down into their constituent parts and then examined. With synthetic reasoning, ideas and objects are joined in varying ways to create more complex ideas or products. Analytic and synthetic reasoning is essential to the creation of a worldview that is both coherent and inclusive.

15. Contextual Understanding

The learning, of how to effectively explain the origin of events, objects, experiences, one's self, humanity, nature, and ideas, requires the virtue of contextual understanding. As a coherent learning virtue, contextual understanding expresses itself as good judgment. A good judge must have an ability to engage in *inferential reasoning*, the ability to give empirical information a context, a coherent narrative. Inferential reasoning bifurcates into *causal reasoning*, when applied to things of the past, and *prediction*, when applied to things of the future.

Generally, inferential reasoning expresses itself as a theory. The Copenhagen interpretation of quantum mechanics and expanding universe theory are examples of twentieth century causal reasoning. Pragmatists and empiricists are distrustful of inferential reasoning because, so often, the unquestioned assumptions of one century are discredited by the next.

As an inclusive learning virtue, judgment expresses itself as open-mindedness, a distrust of the belief that one can know the truth of a theory by its popularity. The distrust, by Copernicus of the geocentric theory, held by every other person in his time, is an excellent example of contextual understanding as open-mindedness. Its absence allows the demons of dogmatism to imprison one's lifetime learning processes. Open-mindedness allows one to distrust one's own worldview with the same measure one uses for one's distrust of other worldviews.

16. Wisdom

Wisdom, as defined here, equates to that virtue that inspires one to engage in harmonic reasoning. Harmonic reasoning, as envisioned here, integrates all fifteen of the preceding virtues, and the learning activities each inspires. As a coherent learning virtue, wisdom directs harmonic reasoning to express itself as an ongoing dialectic between practical understanding and contextual understanding, between what is and what should be.

As an inclusive learning virtue, wisdom directs harmonic reasoning to lead one to a worldview that is both coherent and inclusive. To achieve this, inclusive harmonic reasoning draws upon the dialectical skills it uses to bring a mind's practical understanding and contextual understanding into a coherent worldview. With this, it creates a larger dialectic, one between one's own worldview and the worldviews of others.

Inclusive harmonic reasoning expresses itself as the best learning, arimatheia, of all forms of learning. It takes wisdom, beyond that needed for coherence in one's own worldview, to that needed for the fulfillment of harmonic understanding. With what is learned, through the dialectic of arimatheia, one is able to learn forms of reasoning not held by one's own mind. With other minds, also inclined to do this, a bond is created, not biologically based, not institutionally based, not politically based, not culturally based, but philosophically based. With this, one actualizes their true humanity as Homo sapiens, philosophical mankind.

The idea that one's worldview should engage in a dialectic with other worldviews has its origins in Socratic teachings. It is for this reason that Plato analyzed the philosophical issues of his time using dialogues.

The word *universal* means all inclusive. Universal education is inclusive education. Today's universities can trace their origins to post-Platonic, post-Aristotelean, Greek schools, created across Southern Europe, Eastern Europe, the Mid-east, and North Africa, following the spread of Socratic thought by the conquests of Alexander the Great.   It is in tribute to the inclusive nature of Socratic harmonic reasoning that college fraternities and sororities use Greek letters to identify themselves.

For this same reason, many philosophical concepts employed in this essay are based on Greek. Yet, there is a further reason. At one time, Greek was an international language. If one must choose words that are as universal as possible, as inclusive as possible, to what modern language can one turn? Socratic thought serves all.

The Greek word for learning is *mathesis* (μαθησίς); the English word "thesis" is derived from this. The word *matheia* (μαθηία) is the conjunctive form of *mathesis*; it does not appear as a word in its own right. Mathematics is the learning of metrics. The name Matthew (w = ω) literally means: I learn. A polymath is someone learned in many disciplines.

Ancient Greek philosophy gave humanity its first open-minded culture, one that analyzed the way a mind should make decisions. It created what might be called: the *matheia society*. This "learning society" can be now be found in every culture on every continent. Its members are neither biologically nor socially defined. They come from every race, every religion, every field of employment, and every gender. The schools, colleges, and universities of the world are the tangible products of their values. Indeed, universities around the world are a home to many who see themselves as upholding humanity's highest aspirations.

Driven in great part by both philomatheia, and harmonic reasoning, these individuals take their "true" identity, neither in race, nor gender, nor politics, nor national identity, nor religion, nor cultural identity, nor field of employment, but in what some call soul and others call mind. For them, the learning of how to achieve what is generally called wisdom and here, harmonic understanding, is the goal of all learning.

Here, for inclusive harmonic reasoning, the ancient Greek word *arimatheia* (άριμαθηία - pronounced: har-ee-mah-theh-ee-ah, since the breath is on the first alpha), meaning "best learning" or "excellence in learning," is chosen. The prefix åri is most likely derived from the word: *aristos* (άριστος) meaning best of its kind. It can be suggested that *aristos* is etymologically linked to the word: *arete* (άρετή), which means virtue.

As is often the case, the original meaning of a word is lost to its appropriation for literary purposes by writers whose works become popular. Arimatheia suffered this loss. It is popularly believed that it is the exclusive property of Christian literature. [3]

Yes, the historical figure, Joseph of Arimathea, did provide the tomb for Jesus of Nazareth. But the oft-mentioned assumption, that Arimathea is the name of a town near Jerusalem,[4] may hide the true identity of arimatheia. This essay suggests, admittedly with no collaboration or precedent, that Joseph of Arimathea came from one of the many Greek schools that dotted countries along the Eastern Mediterranean Sea, following the conquests of Alexander the Great. Arimatheia would have been an excellent name for a Greek school.
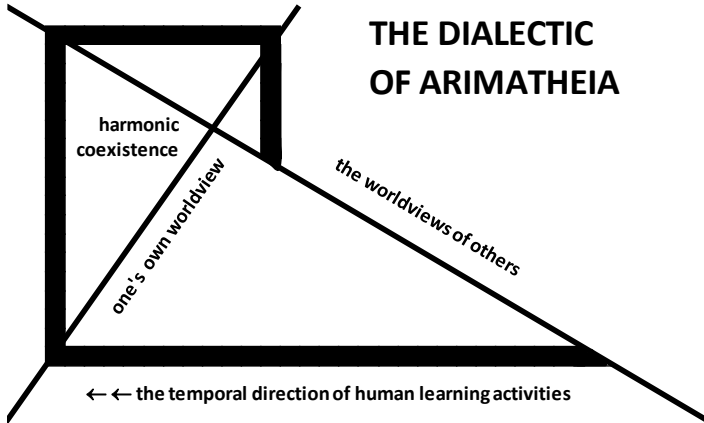
Further, the teachings of Jesus reflect a blend of egalitarian compassion and what might be called a 'humanity is one' doctrine. The first four books of the New Testament, most especially the book of John, originally written in Greek, exhibit the influence of Platonic thought and Greek stoicism. Christianity grew, not in its homeland of Palestine, but in cities, surrounding the Mediterranean, heavily associated with Greek culture.

As the best learning activity, one whose roots are in the concept of virtue, arimatheia serves the view that the highest good is that understanding which gives one harmony of mind and body, harmony with all humanity, and harmony with nature. A case can be made that, in turn, Platonic thought might be inspired by doctrines of universal oneness common to ancient Asian religions.

Though the suggestion, that all persons can self-identify as "students" seeking to learn how to achieve harmonic coexistence through harmonic understanding, is admittedly idealistic; it is reasonable to suggest that humanity, driven by philomatheia and arimatheia, finds its oneness when envisioned, not biologically, but intellectually as *the learning species*. In that the word species is biological in origin, it is suggested here, and elsewhere, that humanity, as one community sharing one planet, can be called: The *Matheia (learning) Society*. As such, it collectively seeks a worldview that is both coherent and inclusive. Its collective learning goal is that higher level of harmonic understanding that has its culmination in a coherent and inclusive worldview.

Supporting this ideal is the observation that when offering themselves as a place where all worldviews, respectful of others, may come together to engage in a sharing of intellectual perspectives, universities can serve as meeting houses for that idealized humanity called: *the Matheia Society*. Universities are idealistic in that they are gathering places for those who seek harmonic understanding for the sake of harmonic coexistence.

Imagine harmonic human coexistence as the asymptotic point of an inward bound logarithmic spiral. Such a point is never reached. Perfect human coexistence will never be reached, but it can be approached. Arimatheia takes place as a dialectic, driven by philomatheia, that higher love for learning that counters the lure of dogmatism. With this dialectic, one's worldview includes both respect for other peace-loving worldviews and a desire to see how others interpret life's great questions. As all learn from all, harmonic understanding advances harmonic coexistence.

THE DIALECTIC OF ARIMATHEIA

harmonic coexistence

one's own worldview

the worldviews of others

← ← the temporal direction of human learning activities

Clearly, even the world's most outstanding polymaths lack the ability to individually engage in a learning activity of this scope. What is needed are places where all of the great minds of the world can come together, in peace, to create a coherent and inclusive worldview that both serves all and respects all.

Fortunately, such places already exist. They are called: universities. Unfortunately, because technology, cultures, and demographics are constantly changing, the longstanding hope, that one overarching worldview can be created as a final answer to the great questions of life, is elusive. Thus, universities exist more as an expression of humanity where all learning activities are brought together to resolve those challenging questions that both confront and illuminate a present time, in this beautiful place, that is our planet.

7

From Where Do the Laws of Nature Come?

This essay began with the suggestion that all learning takes place through hierarchical harmonic principles that arise when entities are forced to share a common place at a common time. The field of scattered parts created by a collision of two vehicles, at a highway intersection, might not seem harmonic from a practical perspective, but from the perspective of the laws of physics, each twisted piece is as exactly as it should be.

The idea that underlying all of nature is a fundamental law, a principle from which all other principles flow, has existed, at least, since the Han Dynasty and the rise of what is often called: yin-yang (roughly: heen-yahng) philosophy. In that belief, there is a fundamental principle of equal opposites that explains night and day, hot and old, the seasons and so forth. Today, we note that for every action there is an equal and opposite reaction and recognize that light propagates in equally-alternating (crest-trough) waves. A floor can only hold a heavy weight to the degree that it can "push back" against the weight with an equal and opposite force.

The question: "From where does energy come?" is the core of what philosophers have called, since the time of Aristotle, the *prime mover problem*. In Newtonian physics, all physical descriptions reduce to distance (d), time (t), and mass (m). The twentieth century's solution, to the prime mover problem, first redefined mass as mass-energy, then theorized that an event occurred, created by an intrinsic spatial quantum-theoretic law of possibility/probability embedded within space. The product of this event is popularly believed to be a Higgs Boson which interacted with the intrinsic spatial laws of quantum theory and general relativity theory to create massive amounts of mass-energy.

This cosmogony is still used to explain the so-called "big bang" theory, itself a product of the assumption that the Hubble redshift is a Doppler shift. The works of Steven Weinberg[1] and MIT's Alan Guth are among the better known.[2] These efforts invite one to ask: How did empty space get to be so smart?

As a response to this question, a 1980 work, *The Basics of Consequentialism*, by the author of this essay,[3] suggested the prime mover problem is best approached, not from the world we know, but from a model for the simplest possible universe (SPU) imaginable. The model accepts the twentieth century belief that universal empty space holds intrinsic spatial laws.

In a primordial empty universe, distance can only express itself as an intrinsic law of unbounded extension (∞D). Time can only express itself as an intrinsic law of eternal unchanging duration (∞T). The substance of the SPU, can only express itself as an intrinsic law of emptiness ($\varnothing$) whose mass-measure is zero.

Now to the reason this cosmogony is presented in this essay. For space to be homogeneous, such that the SPU is everywhere eternally empty, the three intrinsic laws must coexist in harmony. Using an empty closet as an example of a physically existing empty set ($\varnothing$), its emptiness is joined by two properties, that of extension (d) and that of duration (t). Its intrinsic laws allow the closet's extended space to hold objects that have volume.

For the three laws to meet their need to coexist, they must engage in a learning activity, that of synthesis, that unites them as one law which assures the outcome of stable coexistence. The only measure all three can meet is zero. To achieve zero, ∞D and ∞T must first directionalize. The model suggests that the process of synthesis would next require ∞D to fragment into quanta of least spatial extensions, each being bidirectional, such that every quantum of extension holds an equal and opposite direction, allowing the net directions within the SPU to sum to zero.

$$\infty D = \sum_{1}^{\infty} \leftarrow d^- \ + \ d^+ \rightarrow \ = 0$$

This cosmogony suggests that time, as ∞T, would directionalize as past-directed and future-directed, such that the net duration of time is zero. In our universe of mind, time is only future directed. In the SPU, it would be, like the god Janus, past and future directed.

$$\infty T = \sum_{1}^{\infty} \leftarrow t^- + t^+ \rightarrow = 0$$

At this point in the model, the SPU is filled with an infinite number of intrinsically bidirectional distance quanta, and an infinite number of intrinsically bidirectional time quanta, which must individually pair such that they can fuse with the empty set of the intrinsic law of emptiness ($\varnothing$). Therefore, in the SPU, space and time must be one spacetime. Taking a mathematical approach, distance and time can coexist as one spacetime particle by each going into the other and multiplying themselves as reciprocals.

$$\left(\frac{t}{d}\right)\left(\frac{d}{t}\right) = 1.000 \; spacetime \; quantum$$

Further, their union must conform to $\varnothing$'s intrinsic measure of zero. Therefore, for every positive spacetime quantum, there must be an equal and opposite negative spacetime quantum, such that net distance and net time equate to zero. With this we can visualize the SPU's unification of its three intrinsic spatial laws, into one fundamental law that allows it to conserve the measure of zero belonging to emptiness, while still expressing distance and time. This creates a law of equal opposites assuring coexistence.

$$SPU = \sum_{1}^{\infty} \overleftarrow{\left(\frac{t\,d}{d\,t}\right)}_- + \sum_{1}^{\infty} \overrightarrow{\left(\frac{t\,d}{d\,t}\right)}_+ = 0$$

But how should this equation be interpreted? In our universe, the relationship d/t equates to speed or velocity. The model assigns the letter c to this relationship such that $d/t = 1.000c$.

As for the relationship t/d, the model equates to the spatial embodiment of the quantum, a point-like unchanging moment. To each eternal unchanging directed moment, the model assigns the letter μ such that $t/d = 1.000\mu$.

In 1980, the model posited μ as an anti-vector, a least measure of space able to hold both an alignment and positive or negative character (future directed or past directed) which, under the law of equal opposites, must equal the infinitely extended vector to which it is assigned by its arrow and temporal character. But how can a point-like particle equal an infinitely extended vector? It can by expressing itself across that vector, hence the fixed speed of c.

The speed of c is the act of equaling in $\varnothing$'s *intrinsic law of equal opposites* where time (t), as an unchanging local moment, intrinsically belonging to the character of empty space, must, by law, also express the character of extension, which is unbounded. Said another way, in spacetime, it is through the speed of c that a quantum of time, as 1/eternity[4] equals a quantum of extension as 1/infinity, such that they can coexist as one quantum of spacetime.

As a single principle underwriting harmonic order in the SPU, $\varnothing$'s *intrinsic law of equal opposites* can be stated as below. The arrows simply mean the particles have a directed vector.

$$SPU = \sum_{1}^{\infty} \overleftarrow{(\mu c)}_- + \sum_{1}^{\infty} \overrightarrow{(\mu c)}_+ = 0$$

Placed in our universe, this model defines Planck's Constant as two particles [$h = (\mu c)^+ + (\mu c)^-$], and photons as alternating sprays of positive and negative moments (μ) traveling at the speed of c. The 1980 cosmogony called the μc particles *vectons*.[5]

To conserve their properties, the 1980 model requires vectons to interact either by creating a vector sum, a Y interaction, or a vector subtraction, a V interaction where they exchange charge and reverse direction.[6] Using these two particles and their two rules for interaction, the model creates vecton strings that form loops, that form stable particles having the apple-like shape of a block magnet's magnetic field. The breakdown of particle loops form photons as alternating sprays of positive and negative vectons. The Y and the V interactions can be traced-out using a two-dimensional image of monochromatic interference patterns.

Just as we are able to build the entirety of electronic communication using only the on-off "switches" in microchips, the 1980 model is able to consequentially create, using only those two Planck-like particles, a universe remarkably like ours. This universe is named *Nomos*, since everything in it is made of law.

Beyond the model's ontological abilities, its ethological aspects are equally fascinating. Deontology is that field of ethical inquiry dedicated to the view that one's decisions should have their ground in established ethical rules. Consequentialism, as an ethical doctrine, holds that one should make one's decisions so as to create an ethologically acceptable outcome, the outcome of harmonic coexistence, for example.

Nomos evolves from *The Law*, to vectons, to loops, to subatomic particles, to photons, through an evolutionary process. Within this process, distance and time express themselves, not as substance but as intrinsic laws. Nomos has, as its foundation, the virtue of lawfulness. *The Law*, of equal opposites, emerges because the two laws must be mutually expressed such that where distance is, time is there also. A learning activity, learning as synthesis, follows as each law "learns" how to be one with the other. The product of this learning is a higher law, *The Law*.

However, the equally opposite within *The Law* express themselves as an infinite number of positive and negative vectons, all flying chaotically at the same speed (c). A new need now arises in Nomos, in that vecton interactions must conserve *The Law* embodied by Vectons. When like-charges (+ or -) meet, *The Law* is conserved by a Y interaction, of the kind seen when monochromatic photons converge to create laser light. Through *learning as sharing*, the Y interaction arises as an ethical law.

When opposites meet, they conserve their directed momentum through *learning as reciprocity*, fair exchange. The ethical law that follows is the V interaction. Imagine two people on opposite sides of a stream that runs east and west, with only a log as their bridge.

Further imagine that one must always walk north and the other must always walk south. Each has the task of taking a flag (their charge) to the opposite shore. The duties given each can be completed if both walk to the center of the bridge, exchange flags, and then walk backward, along their narrow log bridge path. All properties and directed motion are conserved. This interaction can be used to explain how the energy belonging to "cancelled" monochromatic light waves, undergoing interference, still manage to participate in the equally-spaced bands on a target screen.

Unlike our photons, which are believed to be waves in the sense understood by Christian Huygens, Thomas Young, and even Louis de Broglie, Nomos photons are alternating sprays of positive and negative vecton clumps created by Y and V interactions.[7] Later works, e.g., *The Simplest Possible Universe*, further show how the Nomos model can be tested against the standard model of the twentieth century.

Our current model for light is erected on a questionable assumption, embodied in both Bell's Theorem and EPR, that there is a one-on-one correlation between a created photon and an electron ejection on a screen or photon detector. In the case of the CH74 Bell experiment, Bell's theorem predicts the probability of an ejection correlation will equal the square of the cosine of the transmission axes of its two polarization filters ($p = COS^2\theta$). The Nomos model predicts: [$p = COS^2\theta + .00555(\theta/90)$].[8]

The 1980 book, *The Basics of Consequentialism*, was titled, using an ethological term, because, if our universe is underwritten by a single harmonic principle of coexistence, and if either God, however perceived, or humanity alone, came to exist as a consequence of this law, then we are all the product of, the consequence of, a highly ordered universe. It follows, then, which either worldview is taken, that if we, as a species, are to survive, we must do all we can to align ourselves, have as our telos, harmonic coexistence, not harmful coexistence. The next chapter offers a suggestion for how we might further this goal.

8

Universities as a Path to the Telos of Humanity

Heretofore, it has been generally assumed that the path to harmonic human coexistence must pass through humanity's political institutions. Governmental departments of diplomacy and the United Nations deserve much credit for what they have done in the past to promote world peace. At the local level, police departments and courts, despite the well-publicized failures of a few, do their part as well. However, to be truly successful, they need, what might be called, grass roots help.

A university, to live up to its name, must be universal in its scope. It must be a place where all peace-oriented worldviews can come together, in peace, to share ideas. As soon as a university comes to represent one particular political, religious, or socioeconomic worldview, or identifies with one particular culture or race, it is no longer universal in its scope. It loses the essence of what it means to say: "We are a university." Properly, it becomes a college, a word whose etymological origins are shared with those belonging to the word colleague.

The primary factor, that entitles humans to call themselves homo sapiens, is not fully reached until maturity. In childhood, like animals, one takes one's identity in one's body; one's worldview is genetically proscribed. In adolescence, one takes on multiple identities through memberships in the institutions of humanity. This often culminates in a professionally oriented worldview. But at full maturity, one searches for one's place in the grand scheme of all existence, where one's biological and social identities, once thought important, fall to, what might be called, a god's eye worldview. At this point, contextual understanding is more valued than practical understanding.

Wisdom is the gift of contextual understanding. Only humans take their identities in their wisdom. Here, wisdom is defined as the possession of a coherent and inclusive worldview. At this point, one's formal education must pass from the kind provided by colleges to the kind provided by universities. Colleges exist within universities to prepare one for a career. But the university, as a whole, is greater than the sum of its parts, and inspires something greater.

In their search for coherent thought and inclusiveness, universities teach harmonic coexistence. They teach individuals how to actualize the telos of humanity. In doing this, they seek, on behalf of humanity, that kind of harmonic order held by the laws of nature, or, if one prefers, the laws of God. They are teaching one how to achieve harmonic coexistence among persons, between institutions, and between humanity and nature. They thus share in the same mission given the diplomatic agencies of governments and the United Nations.

Why is the goal of sustained world peace so elusive? It might be that the large gap in intelligence between humans and all other species is the product of a genetic discovery inadvertently made by nature. When members of a species feed on other species, relative strength is selected-in. But when members of a species seek to prosper, not by killing and taking what other species have, but by killing and taking what their fellow members have, normal evolutionary processes respond with psychological factors.

Persons become increasingly uncomfortable around those not like themselves as xenophobia is selected-in. Those trustful of others are selected-out, while those inclined to act preemptively against other tribes, so as to remove the possibility of attack on their own tribe, are selected-in. This evolution of fear has a remnant expression within those college students who must be given "safe zones" because the emotional stress, from simply knowing there individuals on campus who hold a worldview not their own, is more than they can handle.[1]

Countering the negative evolution of dislike, for others who are in some way different, is a positive evolution in intelligence. The intelligence needed for a baboon to distinguish itself from a chimpanzee that might seek its death is one thing; that needed to know if a fellow baboon seeks its death is more complex. It requires a mind with higher social and analytical skills. Intraspecies killing makes social alliances, communication skills, and cunning critical to survival. As these skills are selected-in, instinctive knowledge begins to pale as knowledge gleaned from what others know, education in all its forms, blossoms.

Faced with the curse of being born into a world where one must not only compete with the appetites of other species and the forces of nature, but also with the wants of individuals like one's self, one's survival becomes intellectually driven. A human mind must employ survival strategies not found in its instincts. What Nietzsche called the human "will-to-power" breeds fear; fear breeds a desire for individuals to learn all they can about the world around them. This can be called: the *will-to-learn*.

At a fundamental level, this will-to-learn presents itself as a desire to know all one can about those in one's immediate community. Though the popularity of backyard gossip likely has its root in the distrust of others, it is best regarded as a rudimentary form of the will-to-learn. At a higher level, the will-to-learn expresses itself as a love for that learning that takes one to contextual and harmonic understanding.

The dignity of humanity lies not in its brutal past as a particular biological species; it lies in its future as a community of minds imbued with a love for learning that takes one to harmonic understanding. This love was given the word *philomatheia* by the ancient Greeks. For those having this love, the telos, the goal, the end game of humanity is harmonic coexistence.

Thus, coexistence, alone, is not enough. Two fighters in a ring are in a state of coexistence; they are in a shared space at a common time. What must be sought is harmonic coexistence.

Upon what basis can the world's varied cultures be brought into a harmonic unity of understanding such that the noble goal of harmonic human coexistence might someday be reached? It can be said that, given a degree of philosophical latitude, most historical answers to this question can be categorized either as those that are totalitarian or those that are inclusive. Both seek global harmony, the first under a single centrally-controlled religious, socioeconomic, or political institution, espousing a particular worldview, and the second through a grassroots acceptance of all worldviews.

The totalitarian approach usually begins with social instability. Out of the chaos, a charismatic leader arises who then creates a military force, armed with the most sophisticated weapons known. This force then marches into the world with the intent of demolishing all worldviews not coherent with its own.

The goal of universal human subjugation to one worldview, as a device for realizing the telos of harmonic coexistence, has never been achieved. This failure cannot be blamed on a lack for trying. Religions, socioeconomic systems, and country-based cultures have long marred human history with their attempts. In every case, war, ruin, and hatred have followed. The League of Nations, and its descendant, the United Nations, were formed upon the recognition that when one chooses principles of conquest, as a device for creating world peace, one violates every peace principle ever written.

The alternative, the grassroots peace approach, has been praised for thousands of years, but apart from doctrines of compassion within the world's great religions, never universally actualized. Its essence is captured in the song: *Let Peace Begin with Me*. This approach finds its principle in the recognition that neither one person, nor even one culture, can expect all other persons or cultures to convert to their intellectual worldview. That which must be learned, then, is how to coexist in harmony with peaceful worldviews not one's own.

The essence of the peace approach is found in Greek and Roman stoicism. Reinhold Niebuhr's familiar Serenity Prayer serves as an excellent summation of the role given harmonic coexistence in ancient stoic thought.

Many great leaders, like Gandhi and Martin Luther King, built their legacy upon their own grass roots approach to world peace. The Vatican II doctrine of ecumenism is best understood as a religious template for harmony within Christianity.[2]

Grass roots peace initiatives often present themselves as a rule or principle of peace. Among the more familiar are: "Do not do to others that which you would not want done to you." "Only do that which you would wish to see all other persons empowered to also do." "Do to others only that which has their consent." "Peacemakers and the meek are blessed by God." "Do no harm." "Live and let live."

In 1993, under the leadership of Hans Küng, a Catholic Priest and founder of *The Foundation for a Global Ethic*, leaders of the world's primary religions gathered to endorse seven principles upon which they mutually agreed. They are: humaneness, the Golden Rule, non-violence, justice, truthfulness, the equality of men and women, and environmental sustainability.[3]

In any list of private virtues, traits, seen as desirable, those that lead one to be a person of peace, stand out. Among these are: patience, fairness, self-discipline, composure, sensitivity, congeniality, decency, discretion, cautiousness, cooperativeness, reflectivity, self-reliance, civic-mindedness, gentleness, integrity, compassion, graciousness, respectfulness, and consideration. In every gender, every race, and every culture, all of these virtues improve with maturity.

With this light overview of the grass roots approach to world peace, it can be seen that none of them, alone, have the potential to create the kind of institutional support, augmenting the efforts of the world's governments, that an association of the world's universities would have. Universities have eight helpful features.

Their first feature is that they are truly global. Every country in the world has at least one, and in some countries their numbers approach or exceed one hundred.

Their second feature is that they are global in the sense that student populations are comprised of many different cultures. On a walk across any major university in the United States, one cannot help but hear several different languages.

Their third feature is that all uphold the core values of human dignity, equality, and respect for others. They teach ethics and prepare students for a professional life defined by ethical codes of conduct.

Their fourth feature is that most have philosophy departments, or centers for religious studies, that investigate issues involving harmonic coexistence. Augmenting these resources are a host of related subjects, from psychology, through personality theory, to political science, that study human nature.

Their fifth feature is that their students tend to be at an age where they are beginning to move away from child-like self-centeredness toward an inclusive concern for others.

Their sixth feature is that they usually have, or can acquire, the resources for an international program. Benefactors would be readily available to support such an initiative.

Their seventh feature is that many universities already have international partnerships with other universities. In the United States, most major universities have such partnerships.

Finally, and perhaps most importantly, their administrators, faculty, and staffs are highly educated individuals who already have a grasp of the challenges involved in attaining world peace. The idea, that harmonic coexistence is the most noble hope of humanity, is already a familiar campus theme.

At the conclusion of this essay, there is yet one unanswered question. What university will be the first to direct its grasp of harmonic understanding toward a universal effort to achieve harmonic coexistence as the telos of humanity?

Notes and References

Preface

1. Edward O. Wilson, *Sociobiology, The New Synthesis*. (The Belknap Press of Harvard University, Cambridge, Massachusetts, 1975).

2. A deeper analysis of this interpretation of Planck's constant is found in the Appendix as entry A, titled: *From Where Do the Laws of Nature Come?*

3. David L. Cale, *The Basics of Consequentialism*. (The Philosophy Press, 1980). This book was funded through a grant to Waynesburg College from the Eberly Foundation.

4. In *The New College Latin & English Dictionary*, 1966, author John C. Traupman, of St. Joseph's University, associates the word *sapiens* with these concepts: wise, sensible, judicious, discreet, sage, philosopher, and connoisseur.

5. S. O. Imbo, *An Introduction to African Philosophy*. (Rowan and Littlefield, 1961).

6. K. Wiredu, (1996). *Cultural Universals and Particulars: An African Perspective.* (Bloomington: Indiana University Press, 1996).

7. P. J. Hountondji, *African Philosophy.* (Bloomington: Indiana University Press, 1983).

Chapter 1

1. The expression: tabula rasa, is attributed to John Locke by Pierre Coste in his 1700 translation of Locke's 1690 *Essay Concerning Human Understanding*.

2. Plato's Meno best captures his theory that a mind is a manifestation of an eternal soul that returns through acts of reincarnation.

3. Jean-Jacques Rousseau, *Emile* or *On Education*, trans. Allan Bloom (Basic Books, 1979), p. 62.

4. Aristotle, *Posterior Analytics*, Book 1, Chapter 1, 71a1ff. Jonathan Barnes translation, Second Edition (Oxford University Press, 1993).

5. Kant introduces the idea of synthetic a priori judgments through his "*transcendental expositions on space and time*" (A 26, B 42) - Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (Macmillan & Co., Ltd., 1929).

6. John Dewey, "My Pedagogic Creed," in *John Dewey on Education: Selected Writings*, edited by Reginald D. Archambault (Chicago and London: The University of Chicago Press, 1974; originally published by Random House, 1964), pp. 427-430.

7. Using a grant provided by the author of this essay through his private foundation, David Hoinski, of West Virginia University's philosophy department, conducted research into the answers to two questions: "What is learning?" and "What is Philosophy?" Quotes 3, 4. And 6, cited in this chapter, are taken from the list of quotes supplied by Professor Hoinski.

CHAPTER 2

1. The analysis of law that follows is that of the author of this essay who taught "philosophy of law" at West Virginia University. The rarely addressed question, "What makes a law a law such that the laws of nature and the laws of humans are both law?", is covered in this section. One can find some parallels with Lon Fuller's well-known "8 principles of legality." He first delivered these principles at Harvard Law School in 1956, and later immortalized them in his epic work: *The Morality of Law*, (Yale University Press, 1969).

2. In Books VII and VIII of his *Physics*, Aristotle takes an analysis of locomotion to the idea that, underlying the forces of nature is an eternal unmoved mover, a first mover or unmoved mover. If the prime mover is moving, then it is not the first cause because there would be yet another mover moving it. See: Aristotle, *Physics*, Book VIII, Chapter 6. Jonathan Barnes translation, Second Edition (Oxford University Press, 1993).

3. Contemporary science-based cosmologies tend to see the inertial forces of nature driven by law. Chapter 7 offers an interpretation of the quantum which suggests that it is an expression of a fundamental law of equal opposites created by the need for an intrinsic law of spatial extension, and an intrinsic law of spatial unchangingness, to coexist as one space.

4. In Chapter 7, the spacetime law of equal opposites, light in the hypothetical universe of Nomos, expresses itself as alternating sprays of positive and negative vectons, all traveling at the speed of light. If our universe is Nomos, Planck's constant reduces to two quanta, ($h = p^+$ & p^-), each an expression of conserved momentum.

5. Pioneering ideas, in this area of thought, are found in Gregory Bateson's *Mind and Nature, A Necessary Unity*, (Clarke, Irwin & Company, Ltd., Toronto, 1979). Bateson, the son of noted British geneticist, William Bateson, was both a visiting professor of Anthropology at Harvard University and a research associate at the Langley Porter Neuropsychiatric Institute in San Francisco.

6. See E. O. Wilson, *Sociobiology, The New Synthesis*. (The Belknap Press of Harvard University, 1975). Page 353

CHAPTER 3

1. This sweeping statement draws its validity from its circularity. In many religions, the observable universe is given a concept which can be translated as: *the creation*. For most religions, a primary deity, or principle, is believed to be the creator of the creation. Cosmologies, as explanations for how the universe came to exist, are either religious or secular. The contemporary secular belief is that the universe was created by an unplanned event. No matter what one's belief, one cannot uncouple the causal laws of nature from one's theory on the identity of the factor behind those laws. For an overview of secular twentieth century cosmogonies see: Guth, Alan H., *The Inflationary Universe*. (Helix Books, Reading, Massachusetts, 1997.)

2. Kant's doctrine of synthetic *a priori* judgments, found in the *Transcendental Deduction* of his *Critique of Pure Reason*, reflects the idea that one's judgment is made reliable by a blend of sense information and instinctively rational inferences.

CHAPTER 4

1. Abraham Maslow, *Toward a Psychology of Being* (New York: Van Nostrand, 1962).

2. Lawrence Kohlberg, *Essays in Moral Development*, Vol. I, *The Philosophy of Moral Development* (New York: Harper & Row. 1981); and Vol. II, *The Psychology of Moral Development* (New York: Harper & Row. 1984).

3. M. Wilson, D. Brock, and R. J. Kuhns, *Philosophy* (New York: Meredith Corporation,1972).

4. Augustine, *The City of God against the Pagans*, Book 19, Chapter 1, R. W. Dyson, ed. (Cambridge: Cambridge University Press, 1998), pp. 912-13.

5. For young students, interested in philosophy, Donald Palmer's entertaining introduction to Western philosophy, *Does the Center Hold?* (Boston: McGraw Hill, 2002), is recommended.

6. Though usually translated as truth, alethes (ἀληθές) is the traditional choice for the concept of things physically real. Here, the concept aletheia (ἀληθειᾰ) is used as a way to refer to realty as defined by an answer to the question: What are the causal truths underlying the belief set defining my worldview?

7. Thales, closely followed by Anaximander and Anaximenes, also of Miletus, are regarded as the first of the Greek philosophers, and hence, the first of the Western philosophers. See: G. S. Kirk, J.E. Brown, and M. Schofield, *The Presocratic Philosophers*, 2nd ed. (Cambridge: Cambridge University Press, 1990).

8. For the same reason Greek words and letters are used in Western academia, they are used here. Ancient Greek philosophers were the first to analyze thought, when used as a device for reaching decisions, the first to expose intellectual prejudice.

CHAPTER 5

1. The English word: worldview, is a straight translation of Weltanschauung, generally understood to mean one's view of the universe and one's proper place in it. Its philosophical debate turns on whether one's worldview is driven by the collective dynamics of one's culture or by existential factors faced by individual minds. The interpretation of worldview, presented here, leans toward the idea that both are involved. The existential interpretation of Weltanschauung was first developed by the German philosopher, Karl Jaspers, in a 1919 work titled: *Psychologie Der Weltanschauungen*, available as: *The Psychology of Ideologies*. Karl Jaspers. 6th edition. (Springer: Berlin. 1971).

2. For insights into the history of the doctrine of animalism, see: Árnadóttir, Steinvör Thöll, 2010, "Functionalism and Thinking Animals", *Philosophical Studies*, 147(3): 347–354. doi:10.1007/s11098-008-9287-0

3. Empiricism is the view that certainty, regarding any question, cannot go beyond knowledge provided by one's sense organs. Pragmatism is more a way of life. See: R. Talisse, and S. Aikin, eds. *The Pragmatism Reader: From Peirce through the Present,* (Princeton University Press. 2011)

4. One can view the dialectic between pragmatic and theoretical perspectives as a cycle which begins with an observation that requires an explanation. To provide this, a theory is constructed and tested by experiments that create new observations, requiring new experiments. A theory held for a long time becomes a paradigm, which can suddenly change (shift) due to new theories, as opposed to experiments. See: Thomas Kuhn, The Structure of Scientific Revolutions, 2nd, enlarged ed. (University of Chicago Press. 1970).

CHAPTER 6

1. This sweeping statement might have exceptions. However, from the internal wars of Islam to the battles between Catholics and Protestants, history will reveal that the question, of who is to rule this or that region, is always tied to the fray. The last battles of the Protestant reformation had more to do with who is to control Northern Ireland than who is to use a confessional.

2. Though called the "test bomb" for many years, more recently, the plutonium bomb, code named: fat man, detonated at Trinity Site, is at times referred to as a "nuclear device," perhaps to preserve the popular belief that the uranium bomb dropped on Hiroshima is the first atomic bomb. However, though detonated atop a tower rather than dropped, fat man not only meets the definition of a bomb, but was constructed with the same materials and concentric structure as the plutonium bomb used at Nagasaki. Of some interest is the fact that the physicists involved knew, without further testing, that if the plutonium bomb worked, the uranium bomb would work as well.

3. Anyone, with even a modest familiarity with the primary dialects of the Greek language, with recognize that "best learning" is a proper etymological translation of arimatheia. However, due to the role played by the Latinized name: Joseph of Arimathea, in Christian literature, the many Christian organization that employ this name, and the public's general unfamiliarity with Greek, there is a concern that many will assume the purpose of this essay is to advance Christian theology over other worldviews. Though the harmonic teachings of Jesus of Nazareth are admired and held in high respect, this footnote serves to remedy any belief this is a work in Christian theology.

4. There is no record of a town near Jerusalem named Arimathea. Some have suggested its represents a pronunciation guide for an Aramaic town. But the use, of a pronunciation guide, is not found elsewhere in the synoptic books of the New Testament.

CHAPTER 7

1. Steven Weinberg, *The First Three Minutes* (New York: Bantam Books, 1977).

2. Alan H. Guth, *The Inflationary Universe* (Reading, Massachusetts: Helix Books, 1997).

3. David L. Cale, *The Basics of Consequentialism* (The Philosophy Press, 1980)

4. From a practical perspective, the ratio $1/\infty$ is meaningless. But if one assigns the measure of 1 to one's lifetime, one cannot say the ratio 1/eternity equates to zero. Similarly, if one fires a lead bullet, with a volume of 1 cubic centimeter, into an infinitely extended empty universe, it is meaningful to say the density of lead in that universe is $1/\infty$.

5. The term vecton, as a reference to a particle the size of a half-Planck unit, is first presented in 1980, as a coin, in *The Basics of Consequentialism*. Since that time, the word has been picked-up and used commercially. In later works, this particle has been referred to as a directon.

6. The V interaction accounts for all attractive forces in Nomos. It is not yet recognized in mainstream physics. But when it is, physics will be able to unify the four attractive forces of nature.

7. The dedication, of the Copenhagen and standard interpretations of quantum mechanics, to empiricism, forces upon physics the assumption that any pinpoint initiation of an energy cascade must be caused by one photon. The possibility, that electrons gradually acquire grains of light and then eject when a point of instability is reached, is lost, thus the wave-particle conundrum.

8. David L. Cale, *The Simplest Possible Universe* (The Philosophy Press, 2015) pp. 45-56

CHAPTER 8

1. For a sense of the debate on this issue, see:
    https://www.chicagotribune.com/news/breaking/ct-university-
    of-chicago-safe-spaces-letter-met-20160825-story.html

2. See: https://www.catholicculture.org/commentary/vatican-ii-on-
    ecumenism-principles/

3. Towards a Global Ethic (An Initial Declaration)", Parliament of the
    World's Religions, Chicago, 1993.

Glossary

adaptation As both a harmonic learning activity and the virtue of adaptability, this creates or enhances one's ability to make internal changes so as to improve one's harmonic relationship with others and with nature.

aletheia Truth, in the sense of a thought whose structure schematically conforms to the structure of something existing outside one's mind. Reality, as that something outside the mind that exists independently of thought.

Animalism The view that the essence, of what it means to say: "I am a human" is wholly found in one's genetic characteristics.

arimatheia This best learning of all learning activities takes place as a higher form of harmonic reasoning. In this, one's coherent worldview, created by a dialectic between one's practical understanding and one's contextual understanding, is both refined and made increasingly inclusive, through a dialectic with the worldviews of others. It enriches wisdom with harmonic understanding.

Bell's theorem Published in 1964 by John S. Bell, this theorem deconstructs a 1935 paper by A. Einstein, B. Podolsky. And N. Rosen, (EPR) suggesting that where only two outcomes are possible, e.g., particle spin states, one can infer one outcome by knowing the other. Bell showed that, exposed to a secondary probability test, such outcomes become indeterministic. A problem with the theorem is that it only is valid for particles that propagate as unified fields. Since the standard interpretation of quantum mechanics assumes light propagates as a unified field, as opposed to being a composite of billions of Planck scale particles, each an independent field, photons were used to test the theory. This sustained the Copenhagen belief that electron ejection is created by a collapse of a unified wave field rather than an electron's own internal destabilization.

communication As both a harmonic learning activity and the virtue of communicativeness, this creates or enhances one's ability to exchange trains-of-thought with other minds so as to improve one's harmonic social relationship with others.

conceptualization As both a harmonic learning activity and the virtue of reflectivity, this creates or enhances one's ability to give meanings and categories to empirical and relational concepts.

contextual understanding That aspect of wisdom that expresses itself as one's religious, philosophical, political, sociological, socioeconomic, or scientific beliefs

dogmatism That field of belief characterized by the opinion that one's own worldview has attained that pinnacle of perfection where any further change will lessen its grasp of all great truths

Doppler shift This shift can be experienced by standing at the edge of an automobile racetrack. As vehicles approach, pass, and recede, one notices that the sound when receding is lower than when approaching. In 1842, Christian Doppler, was the first to mathematically describe and explain such phenomena.

ecumenism The activity of promoting harmony among religious sects

empirical That area of knowledge, or possible knowledge, available to one's sense organs

epistemology This philosophical field of study investigates the essence of knowledge and the nature of thought.

etiology This subfield of study, within a larger field of study, serves to learn something's origin or causal factors.

experiencing As both a harmonic learning activity and the virtue of sensitivity, this creates or enhances one's ability to be in harmony with others and with one's environment.

experimentation As both a harmonic learning activity and the virtue of creativity, this creates or enhances one's ability to create new entities or methods that did not priorly exist.

exploration As both a harmonic learning activity and the virtue of curiosity, this creates or enhances one's ability to be in harmony with others and with one's environment.

ground As used by philosophers, ground refers to an unquestioned belief, or experience, or set of such, upon which they can build a coherent worldview.

harmonic reasoning This two-step learning activity creates or enhances one's ability to achieve harmonic understanding. The first step takes one to wisdom as a worldview made coherent through a dialectic between one's practical understanding and one's contextual understanding. The second step, called arimatheia, makes one's worldview more inclusive through a dialectic with differing worldviews, thought coherent by others.

harmonic understanding This expresses itself as a coherent and inclusive worldview that allows a mind to coexist in harmony with its body, with others, and with nature.

Higgs Boson In popularly accepted late twentieth cosmologies, this subatomic particle, due its properties, is believed to have popped into existence due to an intrinsic spatial law of possibility, and then, through intrinsic spatial laws of general relativity theory, initiated an instantaneous expansion that filled the visible universe with high density mass-energy from which evolved matter and everything made of matter.

Hubble redshift In 1929, astronomer Edwin Hubble noticed that the average wave lengths of light proportionally increased, shifted toward the red side of the color spectrum. Imbued with the assumption, held by all at his time, that light is a wave in the sense of water and sound waves, Hubble concluded that his discovered redshift must be a Doppler shift, and that almost all galaxies are moving away from us. Vecton theory collapses Hubble's assumption by postulating that inter-galactic light propagates as a linear string of alternating positive and negative clumpons, each "clump containing billions of vectons. As the clumped vectons travel through space, they constantly misalign by the effects of free vectons and then realign through V interactions passed back through the train. This lengthens clumpon-spacing. If vecton theory is correct, our expanding universe is an illusion created by a flawed assumption.

inferential reasoning This equates to those thought processes that either allow one to causally explain things of the past or offer predictions regarding things of the future.

instinctive understanding Genetic knowledge and abilities that allow one to meet one's basic needs

lawfulness As both a harmonic learning activity and a virtue, this creates or enhances one's ability to bring one's behavior, as already lawfully directed, into a harmony with new laws imposed externally.

Matheia Society Humanity, in the sense of those mature individuals, imbued with a love for learning, *philomatheia*, who have transcended their biological and social identities to see themselves as minds dedicated to that best learning, *arimatheia*, with which one, through a dialectic with other worldviews, will attain a coherent and inclusive worldview that allows one to live in harmonic coexistence with one's bodily self, with one's community, and with nature.

meta-philosophy That discipline that takes one beyond traditional interpretations of philosophy into those interpretations that allow it to explore new fields of interest.

metaphysics This philosophical term embraces both ontology and cosmology. It covers all theories offered as explanations for why the physical world behaves as it does and how the universe came into existence. The popular belief, that supernaturalism is a subfield of metaphysics, does not align with philosophy's historical use the term.

ontology That field of philosophical study that seeks to describe existence, as it is in itself. The question: "What is the color red?" is an ontological question.

philomatheia That higher love for learning that takes one, beyond loving it for the sake of practical needs, to the sake of achieving intellectual excellence, defined generally as wisdom and, here, as the ability to create a coherent and inclusive worldview.

philosophy As the love of wisdom, this is best understood as that human activity which both studies and engages in harmonic reasoning, so as to achieve harmonic understanding.

Planck's constant This is possibly the greatest discovery in the twentieth century. It represents the relationship between the energy of a photon and its frequency, and by the mass-energy equivalence, the relationship between mass and frequency. Said simply, its value: $6.62607015 \times 10\text{-}34 \text{ m}^2 \text{ kg / s}$, represents the least amount of energy a single wavelength of light carries.

practical reasoning This learning activity blends one's synthetic and analytic reasoning skills to create or enhance one's ability to make tools and structures that nature cannot make.

reciprocation As both a harmonic learning activity and the virtue of balance, this creates or enhances one's ability to create harmony through an equal or fair exchange of properties.

remembering As both a harmonic learning activity and the virtue of recall, this creates or enhances one's ability to blend past experiences with current experiences so as to improve one's harmonic relationship with others and with nature.

selection As both a harmonic learning activity and the virtue of selectivity, this creates or enhances one's ability to retain those properties or relationships that serve harmonic coexistence and abandon those that do not.

sharing As both a harmonic learning activity and the virtue of cooperativeness, this creates or enhances one's ability to create harmony though a blend of properties that allows each participant to retain one's original identity

stoicism A wide range of viewpoints that all have in common self-discipline, self-control, and the perspective that one cannot change the world but one can change one's worldview

symbolic reasoning This learning activity, especially studied as logic, applies rules to inscribed images so as to create narratives whose purpose is to convey information, determine unseen quantities, or explain. Its findings can be categorized as either synthetic or analytic judgments.

synthesis As both a harmonic learning activity and the virtue of oneness, this creates or enhances one's ability to blend one's identity with that of others, so as to bring into existence a more complex identity that unifies original identities as a harmonic oneness.

the Inclusive Movement This expression, coined in this essay, refers to the evolution of thought, born in the ancient world by religious and philosophical leaders, that seeks to define the meaning of "us" using concepts that unite, rather than divide, persons, communities, and governments.

Weltanschauung The German word for worldview

wisdom the ability to both create intellectually coherent explanations and make correct predictions concerning things not yet seen. The possession of a coherent and inclusive worldview.

worldview the totality of one's beliefs, as opposed to one's empirical knowledge

Index of Proper Names

Humanity as Philosophical Mankind

Increasingly, it is believed that past concepts of "us" and "them" need to be replaced by a vision of humanity as one "us," one community of like-minded persons coexisting in harmony. To be met, this need requires an understanding of what every human being has in common with every other.

A religion, properly understood, is a philosophical worldview, as are the political, socioeconomic, and scientific systems of thought taught by universities. A key task, of the world's universities, is to serve as a place where worldviews, both practical and contextual, can be developed, studied, rendered coherent, and made inclusive. Universities tend to foster, therefore, an interpretation of humanity, not based upon genetics, but upon the personhood of mind.

Among translations of the word philosopher, one finds the Latin word: sapiens. Every mature mind is a philosopher, in the sense of one holding beliefs on what should be, as opposed to what is. For this reason, human beings are best defined, not biologically, but as a society of minds engaged in learning as a lifetime philosophical activity.

This essay begins with the suggestion that nature's most fundamental activity is learning, the learning of how to attain harmonic order within the universe. As a product of nature's learning, humanity is imbued with *philomatheia*, a love for learning that inspires it to take learning to that best learning, *arimatheia*, the learning of how to create a coherent and inclusive worldview through ongoing exchanges of ideas.

The term: harmonic understanding is coined, here, as that expression best capturing the gifts of such a worldview. With it, one possesses self-understanding, human understanding, and scientific understanding. In their search for harmonic understanding, the universities of the world, using the bricks of knowledge and the mortar of human dignity, are building an edifice for the telos of humanity, harmonic human coexistence, humanity at peace with itself, and with nature.