

JOURNAL OF FORMAL AXIOLOGY: THEORY AND PRACTICE

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“I thought to myself, if evil can be organized so efficiently [by the Nazis] why cannot good? Is there any reason for efficiency to be monopolized by the forces for evil in the world? Why have good people in history never seemed to have had as much power as bad people? I decided I would try to find out why and devote my life to doing something about it.”

Robert S. Hartman

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JOURNAL OF FORMAL AXIOLOGY: THEORY AND PRACTICE

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REALIZING A VISION FOR GLOBAL VALUES EDUCATION

Malcolm North

MALCOLM NORTH is the youngest son of eight children. His father was a mix of engineer-artist, and his mother was a creative-nurse-intellectual mix and so Malcolm identifies himself as a mixed up artistic intellectual. He studied communication, ethnology (University of Southern Queensland), organizational psychology (University of South Africa), developmental psychology (University of East London), logotherapy (Viktor Frankl Institute), theology, leadership (Columbia International University), and is currently pursuing a doctorate in psychology with an axiological perspective. He is a fan of Husserl, Hegel, Fromm, Frankl, and, since 2008, Robert S. Hartman. He works as a non-profit organizational consultant writing leadership ethics and personal development training programs. Though new to the Institute, he has shared Hartman's dream to increase value awareness through a global education center. He is married to a German-born American he met in China. They have two boys and live in Vienna, Austria.

Abstract

Hartman initiated world change with three words, "What is good?" And with three more words, he revolutionized how we understand the properties of good. He saw that all the properties of a good world were not there yet; that the nature of its crisis was a value problem and the solution was values education. Throughout his life, Hartman had a vision for mass education in value science and value judgment, attempting many times to establish a world center in values training. He outlined how such a center would begin and develop in several unpublished articles, now digitized for common access through the European Branch. We submit, without an education center specifically dedicated to value education, we are incomplete in the good task of furthering the work of Hartman and his axiology. We introduce the Center of Applied Value Sciences as one answer to this call, concluding that it is an ethical mandate to do so and invite collaboration to see it increase value consciousness on a global scale. To the man and his science, we dedicate a center of his own vision.

1. Good Things Come in Threes

Omne trium perfectum; good things come in threes. Tricycles, triplets, *Three Little Pigs*, three-legged races, rock-paper-scissors, I love you, and Hartman's three dimensions of value. They are all pretty good things because in some way, they fulfill the intention of their concept (Hartman, 1967, 103). Hartman was a good man consumed with a passion for understanding good. From an early age, he knew something was wrong, or at least, *not good or right* with the world. While wrestling with the philosophical content, essence, and properties of intrinsic and extrinsic values, Hartman discovered a third; the category of systemic values. During the process of filling those three words with meaning, Hartman laid the foundation for a system of formal axiology. From the properties of values in a simple three-dimensional rubric, we can better understand value, what it has and what it lacks. And it all began with three words, "What is good?" that changed forever the way we understand and think about values. But is understanding and thinking about values all Hartman intended? He saw the day when humans would benefit from axiology by making value

education available on a global scale. The inclusion of axiology among the sciences is a good thing. But until the concept of intension has a practical extension, the axiology that Hartman hoped would transform the world remains merely an idea. We have Hartman, and we have his axiology, but something is lacking. To these, I submit we add a third: a training center dedicated to the global education of values. Because good things come in threes.

2. Value Problems Need Value Solutions

In the midst of a world bent on ðdeath, constriction and agonyö (1994, 184), Hartman maintained a vision for a good world in which peace, and life, and the infinite potential of the human spirit would reign. But the world was in crisis and, it seemed, little progress had been made to stem the tide of value disintegration and erosion of human worth. Natural science had produced the atom bomb; now it was time to develop a moral science that would value humanity and give the world a chance for an abundant life (Hartman, 1994, 185-186). It seems *Freedom to Live* was named after this observation of a world that violates freedoms and renounces its ability to do anything about its pending doom. Doing nothing equates to axiological astigmatism because it is extrinsically short-sighted. What is the point of freedom if it is not exercised? What is the point of scientific discovery if it is not shared?

Like many others, Hartman considered that world problems exist first as value problems stemming from a crisis of value knowledge and a neglect of axiology (Bahm, 1993, 6). At the very least, the crisis indicates a lack of value education and the ability to know what is good. Without an institution dedicated to mass education in values, Hartman feared, humans ultimately would destroy themselves. They need value education, a moral compass, ways and means to know and discern goodness and badness in daily judgment (Hartman, 1961). A good world is not complete without a way to reach the masses with value education. Hartman pursued the vision of a global university that would not only research values but teach value-judgment to emerging generations in every field of human interest and endeavor. But a vision is only the intention and not the reality. It remains an idea until it is fully realized in the existence of a physical object (Mefford, 2010, 65) and no such education center exists. However, it is not for the lack of trying, especially by Hartman himself.

3. A World University of Value Science

A very active Hartman sought multiple paths to educate others in values. Outside of his numerous teaching duties and presentations in scores of universities and corporations, Hartman continued training students in off campus classes in the use of his value profile (Pomeroy, 2012, 4). He conducted extensive correspondence with world scholars; sat on various boards and publications, and continued to promote peace, ethics, and value theory until his untimely death in 1973 (Hartman, 1994, 194-195). Perhaps the most compelling evidence that the issue of global education was of paramount weight to Hartman, is the number of attempts he made to establish a center dedicated to raising value awareness.

In 1957, Hartman teamed up with neurologist-psychiatrist Viktor Frankl, psychologist Abraham Maslow, and sociologist Erich Fromm, to create a *Center for Advanced Studies in Human Values* and base it at M.I.T, the Massachusetts Institute of Technology. Frankl, a Viennese doctor who remained in Europe during Nazi occupation, endured four concentration camps. His theories of intrinsic motivation based on a psychology of meaning ö from which he later developed

Logotherapy ó were validated by his experience of incarceration. Maslow is well known for his hierarchy of needs, which could be interpreted as a kind of values inventory of psychological health and well-being. Fromm, a graduate of the Frankfurt School and its sociopolitical existential philosophy, is well known for promoting intrinsic independence from authoritative values. He seems to be the source of inspiration for the first value measurement tool, the Hartman Value Inventory (Hartman, 1994, 191). Interesting is how Hartman collaborated with contemporaries from the same historical milieu, all of whom sought in their work a response to the decaying value-system of their day. I can imagine such a center, founded by such minds, to have major impact on our world, if it existed today. Sadly, this center was not founded, but years later, Hartman and Frankl met again with the idea to establish a joint center; this time an *Institute for Value Analysis and Logotherapy* (Hartman, 1994, 194). In my mind, it is the greatest tragedy that this did not occur. What the world has missed from such an alliance will never be known. Value theory combined with the existential psychology of meaning! Regardless, there is something extant of this collaboration; a careful scrutiny of part two of the HVP reveals strong existential themes in three areas of personal meaning; identity, role, and world perspective. The amount of clinical validation by Pomeroy in his landmark book indicates statistically significant evidence of existential health (2005), no doubt, I am convinced, as a result of the impressive minds of collaboration bearing on Hartman's work.

Undaunted, in 1961, Hartman gathered scholars from five universities and five value disciplines; ethics, anthropology, economics, political science, and psychology; and, under the name of the *Wenner-Gren Institute for Value Research*, the first step towards a fully-fledged *World University of Value Sciences* would be realized. Hartman envisioned a salary for the original cohort of scholars who would run the institute and also developed a five-year plan that would allow the institute to run autonomously from commercial enterprise profits. The five scholars from five faculties, together with Hartman representing philosophy from the National University of Mexico, would then form the first six faculties of the university. And what would such a university do? Hartman had a five-point-plan for that as well.

1. *Research*: This was the core of Hartman's vision. He longed for the day a meta-science of values would permeate the other sciences and faculties.
2. *Teaching*: A new generation of undergraduates, graduates and post-graduate fellows as experts in both theory and practical applications was needed to multiply axiology on a global scale.
3. *Corporate and Non-Profit Contractual Research* for government, schools, businesses, unions and the general public.
4. *Community*: Education outside the borders of formal education were also targeted for value awareness so that axiology could be as household a concept, like economy or psychology.
5. *Publishing*: texts, books, articles and research findings to generate a body of knowledge to further generate mass value education, awareness and development. (Hartman, 1961, 1-5)

The *Wenner-Gren Institute*, the *Center for Advanced Studies in Human Values*, the joint *Institute for Value Analysis and Logotherapy*, and the *World University of Value Sciences* are forgotten visions that were never realized. Clearly, however, Hartman had the clarity of value vision to relentlessly pursue what he saw as a solution for a burgeoning world crisis. He did not settle for doing nothing.

4. Introducing the Center of Applied Value Sciences

In 2012, Ulrich Vogel and Malcolm North met to discuss the responsibility the RSHI had in fulfilling Hartman's vision. During a session of the European RSHI, the board of directors unanimously supported the initiation of a training center ó the Center of Applied Value Sciences (C.A.V.S) ó as a unique education platform that would offer training in Hartman's axiology, applied value science, and liaise with universities and institutes of higher learning to champion the research, study, and existing work in formal axiology of the RSHI.

The Robert S Hartman Institute is the flagship organization that promotes the founder of axiology and his science. It has defined as one of its missions to further Hartman's work through university engagement. The European Board agrees that without an education platform specifically devoted to axiological training, the recruiting, promoting and furthering of the mission of the RSHI would be difficult. There is a great unified sense of responsibility to participate in a project that has the ability toward realizing mass education in axiology. Our response was to form C.A.V.S., and so writing began immediately with the first course, *Axiology I: Introduction to Robert S Hartman and the Science of Axiology*.

5. Courses in Axiology

The initial online presence for C.A.V.S has been created by Jozef Kutej, member of RSHI and IT specialist, who has designed a dedicated, interactive, learning platform with articles, audio files, timeline, glossary, and graphics. Students have login credentials to access digital files and interact with the platform to upload responses, assignments, and feedback to the learning modules. Within the C.A.V.S platform, students can apply for courses, join the member community, be exposed to a cross-section of ideas and developments in value science, and enjoy high-level, on-line, technologically delivered education, while journeying in their own growth in value consciousness. Currently, four courses have been proposed. None of these courses reveal the HVP or proprietary parallel forms in any detail. Rather they follow Hartman's five-point plan to reach corporate, community, and institutes of formal education through offering introductions to Hartman and his axiology. We look to the day, when a C.A.V.S graduate publishes original findings in the *Journal of Formal Axiology Theory and Practice*. The following briefly outlines the current prospectus written by C.A.V.S. and launching this fall.

1. *Axiology I* is an introduction level course designed to introduce the student to the Institute and the life of Robert Hartman through the accompanying textbook, *Freedom to Live*. In this course, students will immerse themselves in the historical and biographical circumstances that shaped Hartman's discoveries and become acquainted with the necessary terminology for developing knowledge in value theory.

2. *Axiology II*: Background, phenomenology, philosophy, and existential themes for personal reflection are covered. This course returns to the remaining chapters of *Freedom to Live* to help students identify and develop an area of further interest. As axiology was Hartman's response to the time in which he lived, students will be helped to identify a meaningful response to axiology for developing an area of application for themselves. A main objective of this course is to give a working knowledge of the three value dimensions and develop a responsibility of furthering axiology. Assignments are designed to raise awareness of what is happening in the process of value judgment and apply the value dimensions in an area of personal interest.

3. *Axiology III*: Students choose one of two options for applying value science in work and life. Track one is a generic C.A.V.S option where students apply axiology in ethics, decision-making, conflict and problem-solving, and do projects associated with personal growth and development. Track two is completed with a partner organization who trains the student in proprietary applications of their value science products for the purpose of credentialing coaches and other business applications such as value profiling. The generic C.A.V.S track course will seek accreditation from professional bodies in Europe such as the European Mentoring and Coaching Council who accredits many university and institutional courses to maintain standards in this burgeoning field.

4. *Axiology IV* is a post-graduate certificate in professional development aimed at developing new contributions to a variety of professional fields with an axiological perspective. It is designed as a free standing course issued by C.A.V.S or run concurrently with university masters and doctoral courses involving theses or dissertations in value science areas. The students' research questions and post-graduate work guide the course work for Axiology IV. This course will also be seeking formal credentials with existing universities as a path to the promotion of axiology. Any members currently pursuing masters or doctorates are urged to contact C.A.V.S and discuss how we can integrate this certificate with university offerings and see coursework in axiology offered in multiple locations. Members can contact:

info@hartmaninstitute.eu or malcolm.north@hartmaninstitute.eu for more information.

The four courses answer the commercially viable aspect Hartman believed was important for developing an education center. Multiplying the education effort would only progress when the education packet included a research and development component. Axiology IV is a key to seeing this take root outside of our own borders of the Institute and our businesses. Students will have necessarily completed the foundational certificates as prerequisite to framing a research project structured by an axiological approach. They will also necessarily join the Institute and further develop the member base and opportunities to promote Hartman's value science.

In addition to the certificates aimed at community, business, and existing university students, C.A.V.S will also seek to act as facilitators, advisors, and teachers for European universities interested in developing accredited courses in axiology. At the time of this writing, discussions with several individuals indicate interest for various research topics in medical, ethical, psychological, and leadership fields. Among the European membership, several indicated they would sign up for courses to complete gaps in their own knowledge base of axiology, lamenting they wished this was available when they joined. Current discussions are also under way with several universities for introducing a *Foundations of Axiology* course, and if approved this may begin as early as next spring. Members are invited to view the current format and provide feedback from their own interest and expertise at <http://cavs.hartmaninstitute.eu>. The RSHI embodies a wealth of knowledge, experience, and specialized expertise in many areas. As Hartman reached out to contemporary experts in his time, C.A.V.S seeks to collaborate with the member resources of the Institute to provide first class entry into axiology and help pave the way for global education and so raise the bar of human values on a wide scale.

Conclusion

As university teaching and community education is embedded in the mission of the Robert S Hartman Institute, it is our ethical duty to complete the good Hartman began and seek avenues for mass education. Doing nothing is axiological astigmatism. If we agree with Hartman that without

a mission on earth, we have no ethical life, (öSome Thoughts on Volume IV Ethics,ö undated) we acknowledge the need for an extrinsic component complementing the man and his science. Kindly allow me to provoke the Institute that bears the name of the man and carries his vision to meet the responsibility we collectively share to contribute to the realization of value education on a global scale. I am convinced, the wealth of experience, knowledge, and desire motivated from a common appreciation of Hartman that exists in the Institute, that we can do this. It began with three words, so now, öLet's complete it!"

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EXPLORING THE HARTMAN ARCHIVES

Ulrich Vogel

ULRICH VOGEL studied chemistry, political science, economics, and public law at the Ludwig-Maximilians-University in Munich, Germany. After five years of scientific research at the Institute of International Relations at the University of the Federal Armed Forces Germany, he received his PhD in political science in 1999. He then joined the international firm, Mercuri Urval, and worked in HR consulting for more than 6 years. After gaining experience in the training business, he was appointed head of Southern German operations of a leading executive search company. In 2008, he started his entrepreneurial career dedicated to reintroducing the work of Robert S. Hartman in German speaking countries by delivering HR services based on the Hartman Value Profile (HVP) to optimize candidate selection, HR development, and work-life-balance. His company, *profilingvalues*, operates internationally with headquarters in Munich, Germany. Ulrich Vogel is a member of the Board of the Robert S. Hartman Institute (RSHI) and president of the RSHI's European branch. For more information, please visit: <http://www.profilingvalues.com> and <http://www.hartmaninstitute.eu>.

Abstract

Robert S. Hartman passed away prematurely in 1973, having been only 63 years old. He produced a tremendous opus which has not yet been sufficiently explored. Whereas nearly all aspects of the Hartman Value Profile (HVP) have been thoroughly disclosed, many other materials still await their discovery. Official documents, entire unpublished book manuscripts, many pictures, his diaries, as well as endless hours of audiotapes from lectures and workshops are stored in about 120 boxes inside hundreds of folders. The list of items is very long. The compiled archive index alone comprises 178 pages. Eight main series (MS) encompass his complete legacy, granted by his widow, Rita Hartman, to the Special Collections Library of the University of Tennessee in Knoxville. This article gives an overview of the Hartman archives, delves into some of the materials in more detail, outlines plans for further exploration of the archives, and aims to stimulate the reader to visit the archives personally or to explore some materials within the member area of the Robert S. Hartman Institute Europe, <http://www.hartmaninstitute.eu>.

1. The Hartman Archives

Robert S. Hartman's death certificate is written in Spanish and specifies September 21, 1973 at 5:20 a.m. as the moment of his demise. The cause recorded in the original Mexican document is as follows: *Shock – irreversible no traumático, Hemorragia aguda difusa intestinal.* Irreversible non-traumatic shock, diffuse acute intestinal bleeding. Much too early, one of the greatest scientists of all times had to end his earthly activities. However, intrinsically, he lives eternally according to his own value theory. Hartman believed that first the body, i.e., our extrinsic expression in space and time, is a means to an end which is, in turn, the mission of every individual human being. The body needs to be transparent so that it is not an obstacle to this mission. Second, Hartman says that the world is good, but not perfect. God is perfect, and he has made the world. Thus, the world is not God, and accordingly, cannot be perfect. But the world is good, not bad. It

is not the world of the devil; it is God's world, and God is far more than good. Hence, the world is actually pretty good and everyone can contribute with his or her own talents to make it an even better place to live.

The imperfection of the world is easily seen and leads directly to the insurance principle. We can statistically measure these flaws by looking at the casualties in street traffic, the mortality in our society, or the number of planes which crash compared to the ones which land safely. Therefore, Hartman pointed out the following at a recorded workshop with the management of Nationwide Insurance in 1960: The insurance business, he said, is not just a business, as in producing goods or services. The insurance business has a moral intention because we try to help fellow men who have gotten caught in the statistical flaw of the imperfection of our world and suffer disadvantages from it. When I pay my insurance premium, I hope that I will not get my money back. Thus, I literally give it to my neighbor who, perhaps, may need it. If the world wouldn't be good, i.e., bad, too many plane engines would shut down or cars would crash. An insurance business wouldn't be possible. What a wonderful explanation of this kind of business is provided by Robert S. Hartman.

It is somewhat tragic that this "Galileo" of humanities, this far-thinking logician and philosopher, was a victim of the statistically measurable imperfection of the world in that he lacked the right medical treatment. Moreover, at the same workshop for Nationwide, he cited Johann Wolfgang von Goethe, the great German poet, who at 82 years of age said to his secretary, "When this body isn't any more able to carry the power of my spirit, God has to give me another one." We would love to have had Hartman longer, even in another body. However, we should meet our responsibility to help him to be reborn in another way, i.e. to make him and his thinking well-known all over the world so that the humanities can develop to the level where the natural sciences already are. With the further exploration of his archives, we will make an important step in this direction.

Let's structure first. The eight main series of the Hartman Archives within the Special Collections Library of the University of Tennessee in Knoxville are titled as follows:

- MS.0591: The Structure of Value 1967
- MS.1015: Robert S. Hartman Papers, 1944-1973
- MS.1129: Robert S. Hartman Papers, 1939-1973
- MS.2031: Robert S. Hartman Papers, 1924-1973 (Bulk 1931-1973)
- MS.2180: Robert S. Hartman and Robert E. Carter Transcript, 1970
- MS.2332: Robert S. Hartman Papers, 1967-1969
- MS.2534: Robert S. Hartman Papers, 1971
- MS.1999: Finding Aid for the Robert Hartman Reel-to-Reel Tape Transcriptions

To begin with the last mentioned main series, the MS.1999, I would like to express my enthusiasm regarding the effect which all these recordings had on me. Listening to the very likeable and friendly tone of voice, feeling the passion and sincerity of Robert S. Hartman personally, I discovered that his authentic message is one of the greatest impressions I have ever had in my life. Moreover, his fine sense of humor combined with his slight German accent makes him a most striking speaker and teacher. During the last weeks I haven't listened to the radio while driving my car. My mp3-player is full of Hartman's audio files, and I look forward to driving to

my office every day in order to listen to his voice and message, giving me an extraordinarily compelling addition to understanding his thoughts, apart from just reading his publications.

During a two day research stay in Knoxville, Tennessee, in May 2013, I was able to convert only about one fourth of all the stored audio-files into a modern mp3-format. More time will be necessary to collect the rest of this extraordinary treasure. What does it entail so far besides the workshops mentioned with Nationwide which covered a couple of days? You can find lectures, e.g., at MIT or as a speaker for events from cooperatives. There are recorded academic discussions with high-level professors, other panels, radio interviews, and numerous analyses of gospels which impressed me deeply. According to Hartman, Jesus was the first human being in history who was able to make the infinity of the intrinsic value dimension comprehensible through his metaphorical language.

Just as compelling are Hartman's extensive and profound axiological derivations of the natural sciences. He uses this framework perfectly for reasoning about the value sciences and their needed development. His extensive and variable wording regarding this subject gives us an opportunity to convince others of the necessity and the potentiality of his ground-breaking work in exploring the realm of values, after having achieved control of the realm of facts due to natural sciences. In one audio file, Hartman's own philosophy, i.e., his value theory, is perfectly expressed by using the very important insights of George E. Moore and recorded by Dr. John Davis, who also had a very pleasant voice. Many more tapes including value seminars, philosophical teachings, political commentaries, e.g., the Vietnam War, need to be extracted and made accessible. Members of the Robert S. Hartman Institute (RSHI) are invited to visit the member area of RSHI Europe in order to listen and comment.

Continuing further with the archive structure, the MS.0591 covers everything about *The Structure of Value*. It would be interesting from the historical point of view to see which materials are in Spanish. As many readers know, Hartman published this book first in Mexico with the title *La estructura del valor* in 1959.

The MS.1015 is one of the largest main series within the Hartman Archives. This collection consists of 63 boxes divided into six series according to the following order:

- Series I: Profit Sharing
- Series II: Value
- Series III: University Material
- Series IV: Published Material
- Series V: Reference Material
- Series VI: Reel to reel tapes

This last series is the corresponding original magnetic tape material to the MS.1999 described above which has been digitized on about 140 compact discs (CD).

The Profit Sharing series is rich and covers speeches as well as the activities of the Council of Profit Sharing, where Hartman served as a Chairman and was very active for decades. Looking at the index of this series, one can recognize his strong enthusiasm for transforming the capitalist system into a more cooperative structure in terms of evolution. He identified five steps in economic development, and we are just in step three. Although the last 50 years have made some progress, in my view, we are still far away from stage five, which, according to Hartman, would be a fully cooperative economy.

Regarding profit sharing, very often his economic value formula is cited: 100% - 50% = 170%. This is wrong, of course, in terms of usual economic arithmetic. However, it really happened in a factory owned by one of Hartman's friends in Ohio. This entrepreneur wanted to give half of his profits to his workers, despite the fact that his accountants and consultants tried to convince him that this would be a most stupid action. He would ruin his company. He implemented his plan anyway, and the result was as follows: He gave away one half of his profits to the workers. Then, they mobilized their inner resources and gave their full potential. Production rose about 40%, and productivity or profit soared to 340%. At the end of the year he divided the profits with his workers again, thus each of the parties had 170%.

Within this series, there is also a sub-series called Corporate Management Material. Here again, one can appreciate Hartman's visionary thinking because some of his specific proposals have become widespread within business, e.g., Management by Objectives, which he named Management for Objectives. He also wrote about employer morality and the concepts of strategy and management science. Being a consultant myself for about 15 years, I can easily understand that I have already learned a lot from him. And there is much more to explore. The RSHI should think about developing a program aimed at generating resources for uncovering these treasures and preparing them for publication. The content would fit our *Zeitgeist*, i.e., the current spirit of our times perfectly. Just to put it another way, Hartman lived 50 years too early, or he thought half a century ahead of his peers. A further sub-series called Manuscripts with about 90 folders indicates the tremendous productivity of this great man.

Series II about value is subdivided into Books, Articles on Axiology and Values, as well as Articles about Ethics. It contains nine boxes full of everything a philosophically interested mind is fond of. Once again, Hartman's profound knowledge of the history of philosophy is stunning. As he said, he had to go through this whole history from Plato onwards in order to find out what man does *not* know – namely what is goodness in itself, that is, what all good things have in common. His search ended with George E. Moore, the first philosopher who introduced naturalistic fallacy, i.e., the confusion of good things with the meaning of "good" itself.

In his lectures he tells about Moore's work, *Principia Ethica* (1903), which is titled by reference to Newton's *Principia Mathematica*. Hartman amuses his audience with the following sentences: "George E. Moore writes in his prolegomena to this ground-breaking book that all philosophers since Plato have mixed-up good things with goodness itself. They said that, for instance, satisfaction is good, or love is good, or joy is good, or whatsoever. But satisfaction is *not* goodness, otherwise we could use satisfaction instead of goodness, which is obviously wrong. So, G. E. Moore said that all philosophy since Plato is wrong due to this naturalistic fallacy. What shall we do now?" And Moore says, "We know good things, but nothing about goodness itself." However, there must be something like goodness. And Moore stated that he does not know. "Good" is indefinable he states – therefore his book is very short! – laughter of the audience. "Indeed, George E. Moore wrote very little, however, it was extremely profound content. Since his publication philosophers make a footnote when writing about goodness, saying that Moore states that this is not correct because it is the naturalistic fallacy, however, they are committing it!" – laughter of the audience.

Series III is full of university material. Hartman was a devoted professor. Nearly 300 students have personalized folders in his archives. Moreover, the classroom material is abundant and contains more than 40 folders. It would easily be possible to create a curriculum for a bachelor's or master's degree in value science at any university with all the needed content provided. The work could start immediately.

Series IV within MS.1015 contains more than 250 folders and stores a lot of articles by other authors as well. This series ends with many fragments of manuscripts from Hartman. Series V complements the MS.1015 with reference material in 14 boxes. Robert S. Hartman often mentioned that he was raised as a disciplinarian in Prussian Berlin. The archives reflect this. However, he also points out in his audio files that his wife, Rita Hartman, opened his eyes and enabled him to see that there are much higher values than discipline or perfection. In fact, his own value theory taught him the relative unimportance of his theory by showing the intrinsic value dimension in its full infinite size and beauty. Sometimes, he coquettishly asks about how much he has changed since. His wife, meanwhile, gave him high grades on his personal development. He thought about how much Rita had suffered, and he quotes her as saying that he has become a much better person to live with.

Let's have a look at the MS.1129 collection which consists of 42 boxes alone, divided into 15 series, namely Axiology, Business, Education, Ethics, Labor, Logic, Morality, Peace, Politics, Profit-Sharing, Publication, Religion, General Topics, Manuscripts in Spanish and German, Other, and Correspondence. Once again, this index shows how broad Hartman's understanding was of the world as well as of the human being and the Self, and how deeply he explored all of these subjects. An extremely bright mind was combined with a person who learned to be humble and encountered his fellowmen in a very amiable way.

Within MS.1129, one can find very different resources. Original first test materials from the Hartman Inventory are stored there, as well as targeted business consulting materials such as a study entitled *The General Theory of Managing within General Electric Company*. It would be worthwhile to contact GE today to ask for permission to publish it because a win-win-situation can be certainly generated. Furthermore, one finds texts regarding re-education in postwar Germany, educational material with respect to Indonesia, as well as a paper called *Life and Entropy*. Hartman also explains this phenomenon at his workshops for Nationwide. He says, if you go to your room, you do not need to *make* disorder, you have to make order. Disorder happens by itself. All over the universe you can observe ever increasing disorder. It seems that nothing can hold up this entropy. But there is just one thing which acts as the counterforce – and that's life. Only life is able to make order and create even a higher order level. Hartman delivers an explanation of evolution and encourages us to explore more of the unlimited human potential.

Within the section on morality one can find a folder on *Creative Altruism*. Hartman was creative in combining terms in order to give an innovative perspective on what at first sight appear to be contradictory or weird combinations. In one of his audio files, he asks the audience to become idealists, but not just pure idealists. They will not sway anything. All of us need to develop into *practical idealists* in order to change the world for the better. There is a lot of material regarding peace and the danger of a third world war. Hartman warns in his workshops and speeches that no one really expected the evil of Hitler, it seemed to be unimaginable. But Hartman claims that he sensed this evil very early. Thus, he was sure that leaving the country was the right decision. Producing atomic bombs to the amount that just a very small part of this arsenal could annihilate entire mankind in a couple of days through the giant fall-out, is not only madness, it's evil. Consequently, because humans are not perfect, there will likely be a moment when the button will be pressed, whether on purpose or not. It's the same reason why some planes crash. Interestingly, Hartman states, he prefers the railroad, saying, "If only one thing in an aircraft goes wrong, and it will go wrong due to human imperfection, I will be down."

In the archives you can read about the *The Challenge of Peace* or *Sputnik's Moral Challenge* as well as *How to Win the Peace*. These writings seem to suggest that Hartman would

have been a pessimist, which he was not at all. You can read about this in *Freedom to Live* or listen to in the audio files. The man of faith lives much better and is more successful than the man of fear. The pessimist always looks for the concept which doesn't fit the situation, whereas the (realistic) optimist looks for the concept which fits the situation. So, the same car in front of the pessimist is a bad automobile, whereas the optimist judges it as a good jalopy. It's the same logic of the glass of water half full or half empty. However, this also shows the beauty of formal axiology that every concept containing its properties is precise in such a way that it just fits once. Hartman said, "A good lamp must first of all be a lamp, and not an elephant, otherwise there is no possibility that it will be a good lamp. Hence, a good house is a bad ruin, and a good ruin a bad house. Value is a play with properties. The person who values, arranges the properties in order to make his or her valuation. Value is a play with properties as music is a play with sounds, or mathematics is a play with numbers, or optics is a play with ray of lights seen as geometrically straight lines."

Coming back to the cold war situation, Hartman tells his audience that they might not like what he is going to say. He acknowledges his opposition to the US government. According to his candid words, "Russia is not the enemy because they are communist. Communists could be very good friends of the USA, like Tito in former Yugoslavia. Moreover, Russia is not an enemy because it is dictatorial. Dictators could be very good friends of the US, like Somoza or Franco, and many others. The provocative question is: Do we have an enemy, and therefore need a kind of military-industrial machinery, or do we have this machinery, and thus, need an enemy?" Hartman openly doubted that the Russians would invade the US if America decreased its weapons. The average Russian is like the average American and does not hate other people, at least not one on one, as long as propaganda doesn't instill such hatred. He tells about a friend of his who was in the battle of Stalingrad, lost all his equipment, and hid in a foxhole. Then a fully armed Russian soldier jumped down into the same hole. They stared at each other. Hartman's friend just started to laugh, and very soon both of them communicated with one another and decided to wait for the end of the battle. Depending on who wins, the other one would be prisoner of war of the winner. This is how to overcome the madness of war, i.e. evil with goodness.

Why have we had such a situation during the cold war? What went wrong is that mankind seemed to be at the brink of annihilation in the 60s (until the 80s) of the last century. Together with Nationwide Insurance, Hartman tried to dig into this problem as far as possible. They developed a great analogy, discussed in the next section.

Within MS.1129, a vast amount of correspondence is saved in very many folders. Hartman was in contact with people all over the globe. Just listing the structured folders of this correspondence takes up 39 pages of the 178 page archive index.

The MS.2031 collection consists primarily of Robert S. Hartman's early work on the subjects of axiology and profit sharing. It also houses a wealth of correspondence, including letters written between Hartman and Wanda Nekrasz, a young Polish Auschwitz survivor, who Hartman met in Sweden and later brought to Wooster College. Also included are approximately 200 photographs depicting scenes from World War II and the Holocaust. Finally, the MS.2332 collection houses manuscripts and letters written between Robert S. Hartman and Robert Ginsberg regarding Hartman's "Revolution against War."

2. The Insurance Principle as One Means to Create Good

As mentioned earlier, the slight imperfection of the world is the reason for the logic behind all insurance. Statistically, there is a small fraction of flaws, i.e., of things that might go wrong – and

they do go wrong. However, the vast majority of all happenings in the world are going right, because the world is good by its purpose and foundation, according to Hartman's philosophy. It can be proved scientifically that it is not the devil's world.

The insurance principle says that we pool our risks by taking a little bit from everyone in order to help the ones who are caught by the statistical flaws of the world. This is real, morally based, and profound reasoning. It should be considered not only in classical insurance applications, but also regarding states and politics.

This is all good, but there is a possible misuse that needs to be recognized immediately. Hartman differentiates three kinds of insurance frauds that are decisive for understanding our human situation during the last centuries. Let's explore these aspects a bit more in depth. They are beautifully elaborated during one workshop with the top management of Nationwide Insurance. The principle is projected onto society as a whole as ordered by politics.

The first insurance fraud, according to Hartman, is the obvious dictatorial one. The potentate takes money from his people by saying this is necessary for security, and then brings it to Paris or Switzerland in order to squander this wealth in luxury. Thus, the insurer commits the crime and betrays his client by only seeing him as a cow to milk and not as a citizen. Second, the insured person can commit a crime by pretending to have an insurance case. However, there hasn't been any evidence for this. This kind of fraud is wide-spread, and insurance companies have learned to investigate these claims quite extensively in order to avoid significant losses. This second kind of fraud seems to be quite tame compared to the first case regarding dictators, who happen frequently all over the world.

The third kind of insurance fraud is even more interesting and at times very dangerous. Hartman explained it extensively using the example Orson Welles set in the 1950s. This famous man carried out a peculiar experiment by disseminating a message on the radio that the Martians were just invading Earth. The shock, the perception of an immediate threat for all, frightened the population tremendously. Very creative insurance people immediately came up with the idea to sell insurance against the invasion from Mars. They sold quite a lot! This amusing example shows in a quite striking way how sensitive our society is towards potential threats, even if they are completely unrealistic. This finally brought Hartman to the further conclusion that the situation of the cold war – or even any war – is this third insurance fraud, one committed by government, especially the military complex. They create a threat scenario which is not at all realistic. And, he says, the US government is very successful in doing this.

As we know from all his writing, Hartman was not a person to stay pessimistic for very long. He tried to sort out how to change the world for the better. And he did this with the insurance people. They elaborated a model for how to project the successful insurance principle onto social life, business, and the state. Why couldn't taxes be seen as an insurance premium? Why not regard the military as having the same function as the police, namely to secure people against real threats? Thus, the government's purpose is to protect people from possible harm. Consequentially, a military couldn't focus on its own territory alone. There must be a "world police force" in order to secure or "insure" all people. Finally, this leads to a world government, which we are far away from as we all know.

I would like to state clearly that Hartman was a realist in his time. He referred to the "peace protesters" as crackpots. They wouldn't change anything – and he was right. He was clear that it was not the right time to make a "revolution." Targeted developments for peace need to be planned long-term in order to create a climate for a change at the right moment. Well, we are still waiting for this moment in time. Maybe, it's at least partly our own fault that we haven't been so clear,

have found it too inconvenient, or haven't penetrated far enough in order to set this subject on the agenda. Hartman shows us that without doubt, it's not only logical, it is inevitable, and we must strive for it.

3. Planning further Exploration

The archives are substantial and rich like a treasure. The people at the RSHI are working voluntarily, which quickly limits our resources. However, modern technology gives us tremendous means to create synergies and achieve great success. Step by step, material from the archives is being digitized in an intelligent way. It does not make sense to assign a student in library science to digitize the Hartman Archives as a whole. We need to bring each piece explored to a platform in order for it to be accessed by interested members of the Institute. Therefore, we have created the member area at <http://www.hartmaninstitute.eu>, where every member of the RSHI worldwide can have access with a username and password to study Hartman's writings. We have created this area so that comments, summaries, or articles can be posted. Thus, all of us can explore this rich information in these archives for the benefit of everyone. It is a great synergy. No one can do this job alone. Hence, we are inviting you to join the explorations of this dedicated group of people.

4. In a Nutshell

A closer look at the Hartman Archives within the Library of the UT in Knoxville showed that there is tremendous content which hasn't been explored sufficiently yet. Complete manuscripts such as *Ethics on Industrial Relations* or *The Concept of Competition and Cooperation* are ready to be published. Not only in terms of the content but also from the medial point of view, there are many opportunities to market the ideas of Robert S. Hartman. The described platform within RSHI Europe gives us the opportunity to unite a lot of resources. Let's start. We will make Robert S. Hartman and his work renown. Everyone can contribute, and thus change the world for the better.

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CHASING AFTER PI: A RE-INTERPRETATION OF “WHY?”

C. Stephen Byrum

Steve Byrum, Ph.D., studied with Robert Hartman, John Davis, and Rem Edwards in the early 1970s at the University of Tennessee, Knoxville. He taught for 25 on the college and university levels, had a personal and family counseling practice, and has done consulting work through The Byrum Consulting Group, LLC since 1978. He has used the Hartman Value Profile in all of these situations and as a base for his work in leadership development. He has written extensively on Hartman’s work and has built a diverse range of interpretations based on HVP indicators. He has served a tenure as President of the Hartman Institute.

Abstract

The article begins with the recollection of a very early school fascination with the idea of the mathematical construction π . As a young person, I was continually exposed to π s and especially religious and theological "truths" that claimed to be absolute. Yet, with the idea that π could never be fully and absolutely expressed, it became clear that maybe a lot of π s was really interpretative and perhaps very biased π s getting close.

Later, when astronauts started claiming our attention, we learned that π s getting close could be totally disastrous. It became easy to see Kierkegaard's π leap of faith at every turn.

In some respects, the article develops a philosophical approach to uncertainty. Even more, there is an approach taken that uncertainty may be a richer and more authentic stance than a belief in supposed absolutes. This stance may be the very base of creativity, discovery, and what some have called "revelation."

As in many of my articles, I draw deeply on the insights of Robert Hartman and relate Hartman’s work to a variety of voices that may not be regularly related to Hartman’s thought. In the end, I try to show how Hartman was ahead of his time in capturing insights gaining wide audiences today. Perhaps by seeing these connections, a wider appreciation of Hartman can be advanced.

Context

When I was in the middle stages of elementary school, and a long time before in my culture of origin π I had ever heard of anyone who was a π osopher, I was introduced to the concept of π , which was identified as a Greek letter used in making mathematical calculations. At first, it seems as if I was being introduced to a secret language known only to mathematicians and scientists, and that my new knowledge was some sort of portal to an exclusive world. NASA was going to the moon, there were astronauts, and mathematical and scientific knowledge was the resounding flavor of the day. Soon, it became clear that everyone in the fourth grade and beyond knew exactly what this π was all about, and knowing it and using it correctly became simply a means to pass basic geometric tests. To find the area of a circle, I simply did the multiplication of R^2 , and I was right every time. I could even have a choice of expressing π as 22/7 or 3.14, and by carefully following my simple multiplication tables, I was excelling and certainly on my way to the astronaut corps or some secretive governmental laboratory.

Then, somewhere about the seventh grade, and now only knowing nothing about philosophers except Socrates, Plato, and Aristotle as historic figures from a world civilizations class, I was becoming a bit of a class rebel. This only meant that I had learned how to challenge teachers with questions that made them work to *not* notice my signaling hand when it was raised in class. They knew I was persistent, so it was finally easier to engage my question and move on without too much wasted time.

One day in math class we were calculating area of objects using this no-longer-mysterious

. The teacher worked through the formula and declared the area of the form to be whatever square inches or square feet it ended up being. She had even run her answer to a couple of decimal points. I raised my hand; when finally called on, I said: "You know, that is not the right answer." She checked her calculations, which were correct, and responded: "Of course, it's right." Then, I rebelliously pontificated, with a thought that had never exactly occurred to me before: "Not really. Not *exactly* right. Isn't it true that π is an irrational number" like you explained yesterday" that can carry decimal places on out into infinity without ending and without repeating. Take 22 and divide it by 7, and you get 3.14 for sure, but that number is not exact. I've been sitting back here dividing all period. I've got 3.14159, but I could keep going on." She replied: "You're correct, Steve, but 3.14 is close enough, and close enough is good enough." While she tried to move on, I had one last retort: "Yeah, close enough is probably good enough, but close enough is not the same as exact. If fact, no answer that we give on a test is really the "correct" answer, is it? You could never really ever be exactly sure what the area of a circle is, could you?" She never even turned from erasing the board as the period bell rang. My friends in class went our quiet, almost as if I had put a question mark on the existence of truth itself, or maybe even God. One of my friends, no real math whiz at all, found great comfort: "Then, based on what you said, all of those problems I got wrong on the tests. I wasn't exactly wrong, was I?" And, of course, he wasn't.

There was one last challenge: a year-end math competency test given to students statewide. In the end, I was perfect except for one question" the area of a circle. My choices: (a) some number arrived at by multiplying by .314, (b) a number achieved multiplying by 314, (c) the supposed correct answer, the result of multiplying by 3.14, and (d) none of the above. I had answered "none of the above," and was told that "C" was correct. Of course, I argued, but the teacher had the test answer booklet provided by the State. She was the "winner" of the argument, but to this day I am still convinced that I was right.

Somehow, I continued to be plagued by the thought that what many people so casually accept and call "exact," and "true," and "right" may be more complicated than they might lead you to believe. In the general morality that we were taught, "close enough" was never "good enough." Even in the way I mowed our yard based on my Dad's very exacting directions, "close enough" was never "good enough." He had two categories of result: "good job" (to follow the definition of "good" offered by Robert S. Hartman, I had fulfilled the systemic concept of what a yard mowing effort should achieve) and "half-assed." My Dad hated anything that was "half-assed," and would settle for nothing but "exact." He would have loved Hartman's definition of something that is "systemic" it either is or it is not. How dare a math teacher, or a preacher, or a politician advance that "close enough" was "good enough." We would later watch men walk on that moon, fulfilling their promise made while we were still in elementary school, knowing full well that a 3.14 level of exactitude would never be good enough with celestial sized spaces to get you there or back. We would later learn that the 40th decimal point relating to π would become the scientific mimimal requirement for "exact." With the advent of the supercomputers that would begin to populate our

later, adult lives, the ability to take the decimal points to 10 trillion places (10^{13}) would be necessary for the kinds of calculations these supercomputers wanted to perform, and still that was not *exact*.*ö* Maybe, just maybe, there was no way to get to absolute truth, and we at least seem to want to hope, or have the need to be able to believe, that there are some kinds of absolutes that stand beyond the relativities of our everyday lives

Then, my Mother got very sick with cancer when I was about 10 and suffered through terrible operations and radiation therapy, only to die when I was barely 13. That set of events did not add up either. We were raised in a traditional church with all of its traditional religious beliefs during the middle of the twentieth century. A good person of faith was not supposed to suffer such pain and death. Prayer was supposed to work. All of the bright promises and somber assurances of *miracles**ö* just did not work out. Someone might have had a *truth*,*ö* but clearly it was only part of a *truth*.*ö* I never flirted much with atheism, as I early on saw it with as many loopholes as theism; no one could prove anything*ö* and, *öcloseö* could be inches or millions of light years, so *öclose enoughö* or *ögood enoughö* held little meaning. Then, I started what became a lifetime of studying theology and philosophy*ö* looking for a different kind of resolution of . I may even have had times in which chasing after *öpieö* was more important, most days, than chasing after *pi*.

Philosophy: The New Discovery

I came to philosophy early in college. I started at the University of Richmond in Virginia, going there on a football scholarship. After going through registration on the first day of school, I wandered around campus. Richmond stills looks like a university ought to look, something of the architecture of Oxford England transplanted in the United States. I walked along ornately plastered halls and covered cloistered walkways, and I finally opened an imposing wooden door with a large metal lock. Immediately inside, on a bulletin board to the left was a large piece of poster board with the words *öWhat is Existentialism?**ö* written with a large black marker. I can assure anyone that I could not have pronounced the word, had never heard it (or probably knew no one who had), and had no clue of what it meant. My response in my own mind was, *öWell, if I’m in college, and this is what college is about, I guess I need to know.**ö* A meeting place for that night was also announced on the poster. I showed up, listened to the lecture, and have been mesmerized ever since.

No one had much good to say about this Nietzsche person, so he was my first choice to investigate. Soon, I had a kind of mantra for life in Nietzsche’s famous maxim, *öThere are no truths, only interpretations.**ö* This insight hit my life at just the right time. I had pretty much moved away from *öTruthö* of the capital *öTö* sort, but had not given up on life. I was playing football in college, and how many people got to do that? Nietzsche’s *öinterpretationsö* became a solid kind of middle ground that made sense then, and still does.

In the initial introductory classes that I came to quickly, I learned about Gottfried Wilhelm Leibniz, the German mathematician and philosophy, and his *öPrinciple of Sufficient Reason.**ö* My first philosophy professor, who also was a fan of Aristotle’s argument about causation that Aquinas turned into a proof for the existence of God, seemed to find great comfort in Leibniz. His *öPrincipleö* stated that there was a logical explanation for everything. All we had to be were Sherlock Holmes, not give up on the pursuit of truth, and all would ultimately make sense. When I offered a comment about Nietzsche, he curled his nose like there was a bad odor in the room, and dismissed the existential radical in a way that only made me more curious. I could have gone on to remind him that Leibniz had also suggested that some of these logical explanations would only

be known to God, but thought better of that and stopped a line of questioning that he was clearly finding uncomfortable.

“Interpretation” formed a higher status of credibility and honesty than any faith I had experienced or any comfort that logical proof had suggested. I began to feel much more at home with those who pressed questions, and I held any “answer” as tentative, as opposed to those who created self-righteous zeal around having all the “Answers” with a capital “A.” Life, in some respects, became to me a great series of “interpretations” that are always being refined and always being tweaked by changing circumstances, reflections of “Reality” that would never be totally grasped and capable of great disappointment (my Mother’s death), and wondrous serendipity (falling in love and getting married). Instead of Arthur O. Lovejoy’s *The Great Chain of Being*, I came to believe that we might more accurately talk about a “great chain of interpretation,” and if “interpretations” (and Jacque Derrida’s “re-interpretation”) were accompanied by tolerance and open minds, some real progress towards a better world might possibly be made.

The prospect of marrying Phyllis was much better than football, so I left Richmond and we finished at Tennessee Wesleyan College, a small liberal arts college in our old hometown. Again serendipity: there was nothing small about the faculty, a gathering of young professors who would eventually go on to exceptional teaching posts and writing careers across the United States. The best was an Old Testament and Philosophy teacher named Hugh Clayton White, who became the most important mentor and teacher of my life. In our very first class, when I was a sophomore, he had us read Heidegger’s *An Introduction to Metaphysics* as our first text. I still have that old first-edition paperback. It is worn almost more than any book I have ever owned. Its underlinings have underlinings, and the history of its marginal annotations is like the history of my philosophical pilgrimage. And, of course, there at the very beginning were those startling words: “*Why is there something rather than nothing?*”

I added Heidegger’s words as a second mantra. I clearly, and always, understood that he was not trying to answer the question or “make sense” of the *something*. He was rather seeing the question itself as a spark, a catalyst, to some posture of personal authenticity that rose from questions of deepest personal meaning. At times, I could take the dark side of the question, with Heidegger, to a place of angst and dread. At other times, I could move more honestly with Wittgenstein and find a place of wonder and awe. At yet other times, I could move with Buddha to a place of silence and simply find authenticity in being silent before existence. I finally added a third mantra from the poet Rainer Maria Rilke and came to believe it was better to “stand in the midst of ‘because,’ and not ask ‘Why?’ or ‘at least, not ask ‘Why?’ in the conventional way that we typically ask ‘Why?’”

In some respects, this paper is about asking “Why?,” but asking it in a way that is not the traditional way. I know from family tradition that I worried my poor Mother, and anyone else who would listen, to near distraction with all of my questions. My Mother even often expressed worry about all of the questions. Her “solutions” that I was not supposed to doubt, or that God was fully able to take care of “all that” never really satisfied. When I would finally run the gamut of one “Why?” after another, and she would start her own gamut of “just because,” I never went away satisfied with “just because,” only full well knowing that our “great conversation” was over. If I cannot “stand in the midst of ‘just because,’ maybe I need to find a new way of asking “Why?” Or: a re-interpretation of “Why?”

Jim Holt's New Book: *Why Does the World Exist?*

I am not sure the thoughts of the paper to this point are very far from what I would call my own öphilosophyö today after all these years. They appear almost like a nucleus around which most of my subsequent thinking has orbited across the years; adding a new point of reference or refinement here and there, but never straying far from the grounding center. I also do not want to suggest that I obsessively and compulsively think only in these arenas. I do not. I have grandchildren now, and the wonder and awe of their experiencing the world and their moment of both öjust becauseö and öWhy?ö are mysterious and fascinating. There is still Phyllis, and there is more than plenty of mystery, awe, and fascination in our relationship as it extends beyond five decades. öLoveö may always be more of an absolute that makes any öTruthö relative. That factö as close to öfactö as I have ever comeö is the most existential reality of my existence as a human being.

On the other hand, I could not help picking up Jim Holt's new book, *Why Does the World Exist?*¹ I had read Holt across several years in the pages of *The New Yorker*, the one magazine I read every week. Some people tend to know a lot about a few things, while others know a little about a lot. Holt seems to know a lot about a lot, and is particularly strong at seeing interrelationships and advancing alignments. Holt has helped me better understand quantum theory, string theory, and a list of modern thinkers in mathematics and science beyond Einstein that I have found fairly incomprehensible, butö being a responsible philosopherö felt that I ought to try to understand. Holt is particularly strong in his ability to bring incomprehensibility down to earth a bit. I knew his book would have to explore Heidegger's question (which had been Leibniz's question) through the lens of modern science. I knew only bits and pieces about that approach, so I ploughed through Holt's book with great slow care. In fact, I read its entirety twice and sections of it up to four times.

Holt's book is like a *history* of the pursuit of this question of why there is something rather than nothing. In this sense, it is an excellent task of reading to pursue, as there is a huge base of material compacted in a relatively small space. If a philosopher or theologian comes at his book, a great deal will be learned about science, mathematics, and particle physics. If a scientist or mathematician comes at the book, a great deal will be learned about philosophy and theology. If anyone comes at the book believing that Holt will create a conclusion that answers the question, there will be disappointment. Maybe what is finally established is that (A) the question truly cannot be answered, or (B) the question still is in process and still retreating away from the questioners who are understanding that the more that is asked, the more that is revealed to be asked. Holt, at the very minimum, gives a profoundly insightful review of the state of the inquiry.

Holt reviews all of the main historical and traditional öproofsö for the existence of God as a creative principle behind and before that which exists. He sees all of the movements from Plato and Aristotle that manifested themselves in the convincing rationales of Augustine and Aquinas, arguments that succeeded in convincing lesser minds of the reality of God, answered the questions of ultimate causation, and gained them sainthood. Of course, the arguments are only that, and they are unable to *prove* anything at all. My Mother would have probably been convinced, but even her philosophically inclined little boy could sense the infinite regress in questioning about God's mother and God's mother's mother, *ad infinitum*.

¹ Jim Holt, *Why Does the World Exist?: An Existential Detective Story*. New York: W.W. Norton, 2012. [Please note that quotations from Holt's text later in this article will be referenced with page numbers within parentheses.]

He seems to have a distinct affinity for Anselm, not that the old saint *proved* anything at all, but that he demonstrated the beauty and power of logical argumentation in his ōontological proof.ō He recalls the famous incident when Bertrand Russell was walking down Trinity Lane at Cambridge and experienced the almost electrifying moment of insight that the ontological argument was true. Though a bit mesmerized, he would later change his mind, but would always carry a certain appreciation for Anselm. Robert S. Hartman (see my *The Value Structure of Theology*²) had the same appreciation. Hartman was altogether certain that there was no *proof* for the existence of a First Cause, a Necessary Being, God. On the other hand, it was possible to establish ways in which conversations regarding Godōs existence could be pursued and a platform for legitimate discussion advanced. The best you could ever accomplish was to talk about God, and Anselm had advanced the conversation above and beyond his peers.

Holt is also very comprehensive and very careful to affirm the positive contribution of those referred to by some as ōthe new atheists.ō He frequently makes mention of the work of Christopher Hitchens and Richard Dawkins, but he is also adept at bringing into the conversation those modern writers who take on a more theistic point of view such as Richard Swinburne and Karl Barth. Almost all of the most well-known existential thinkers are more than adequately represented. None of the ōreligiousō proofs, non-proofs, or inclinations toward theism or atheism rise to the status of answering what William James had once called ōthe darkest question in all of philosophy which leaves us all beggars.ō My position has long been that theismō I *know* that there is a God who ultimately answers all the questionsō and atheismō I *know* that there is not a God who ultimately answers all the questions, are equally problematic on the basis of our utter inability to absolutely *know* anything beyond a shadow of a doubt. Agnosticismō the thought that I *do not know*ō seems to be the only legitimately honest and accurate approach, with the real challenge being to be able to rest with the *unknown* (or *Unknown* if that makes anyone feel better) without the ōidolsō (Vahanian) of presumptuous conclusions. I particularly like his very pertinent excursion into the work of John Updike whose writings have provided paradigms of interpretation for me for decades. Anyone who can even bring Karl Lagerfeld into the conversation certainly gains credibility for looking into every obscure pantry drawer of meaning imaginable.

Here is the list of the people I learned more about from Holt than I had ever know before, and additionally learned why they are important to the overall pursuit of the question of why there is something rather than nothing. There is no need for me to try to explain what each of these people have contributed to the conversation. You can read Holtōs book for yourself and then follow his leads to further meanings that are generally very available. The world of those listed hereō not an exclusive list within Holtōs writings, but the ones that fascinated me mostō is fundamentally the world of mathematics and physics, and particularly the world of particle physicsō the ōmissing linkō arena in scientific study about the origin of the universe and human existence. Beforeō to meō it was a world multi-fathom deep with strange symbols once generated on black boards with white chalk and now generated by super computers, a world of black holes, worm holes, string theories, and quantum fluctuations. Now, because of Holt, it is a world that seems to be verging on some small degree of sense. My life, beyond Newton, Einstein, Russell, and Wittgenstein, is nowō because of Holtō populated by:

- Alex Vilenkin
- Steven Weinberg

² C. Stephen Byrum, *The Value Structure of Theology*. Action, Massachusetts: Tapestry Press, 1991.

- Derek Parfit
- Robert Nozick
- Werner Heisenberg
- Kurt Godel
- Steven Hawking

I keep imagining these individuals showing up on the old television game show, “What’s My Line?,” and challenging the celebrity panelists to guess what they did for a living. Reading their insights is like a voyage into a new language, a language that points at possible realities that were hardly imagined during our children’s schooling, and not at all in our own. My attention became riveted on two concepts that have great fluency in the world of particle physics. First, there is the concept of a “multiverse” as opposed to a universe. If space is finite—a conditional assumption, not a fact—then there could be more universes than could ever be counted. The prevailing opinion is that these multi-universes would likely arrange themselves—since everything else seems to—in some sort of bell curve formation. Some would be so advanced that we who live on the Earth might be thousands if not millions of years of intellectual evolution from discovering or being able to comprehend even the most trivial and inconsequential of their insights. Other universes might be so primitive that the most stereotypical caveman would have stature of intelligence greater than an Einstein would in our world. For someone raised on Isaac Asimov and Rod Sterling, the concept is anything but farfetched, and above all compelling for some night sky star gazing.

The likelihood, and this likelihood probably would have strong mathematical substance, is that our Earth’s universe, Milky Way galaxy included—is average.³ The likelihood of “average” would be mathematically most likely for any single place in a multiverse. We may be insulted to consider ourselves “average,” and the very thought may be more of an obstacle to our egos and our religions than Copernicus and Bruno’s “heliocentric,” sun-centered solar system was to the church in the late Middle Ages.

But, intriguing as the math and physics based speculation is, you are still not in the near arena of *knowing* or *proofs*, no closer really than Augustine and Aquinas. For all we *know*, we could be the very worst civilization or the very best, the only civilization or one of more than we are capable of counting. Our most modern research leaves us, in all honesty, agnostic—we do not *know*.

³ The concept of “average” here is fairly easy to sustain logically. Imagine that there are trillions of universes and multi-trillions of planets. If we are talking about an infinity of space and an eternity of time, trillions and multi-trillions may be too few. I say “just imagine,” because we have no way of absolutely knowing in terms of provable “Truth” that there is this multitudinous multiverse. Bishop Usher, based on his reverse calculations from the Book of Genesis, saying that the world was created by God in 4004BC and that anything that looks older was simply created to look older, could also be exactly right. But, following our imaginings about the multiverse, the mathematical odds still favor our being “average,” especially if the bell curve is a logical construct which our every observed anecdote about perceived existence seems to strongly suggest. Imagine taking a trillion tests of some sort. There is a chance that you would answer every question perfectly, and an equal chance that you would answer every question perfectly wrong. Imagine playing a trillion rounds of golf, a small number in an eternal infinity. There is a chance that you would shoot 180—a hole in one on every hole—at some point. There is also a chance that you would shoot 360—a quintuple bogey, five over par, on every hole. I’ve had a few of those so they are altogether possible. Take a trillion trillion tests or play a trillion trillion holes of golf, and the mathematical likelihood as you approach either of the tasks is that you would make an “average” grade or have an “average” score. So, as the Public Broadcasting star of “Prairie Home Companion,” Garrison Keillor famously says, “Most people are average.”

Secondly, there is the concept of a Higgs Field, now made very popular by the õappearanceö (to use a Heideggerian reference) of the Higgs Boson particle öexperiencedö in the Large Hadron Collider on the border between France and Switzerland. The concept is fascinating. In high school chemistry classes in the 1960s, we learned about vacuums, and we had pumping devices that would suck air out of glass laboratory equipment in a way that fascinating effects could be accomplished almost like magic tricks. We could even speculate conceptually about a õpure vacuumö is, which is close to önothing,ö although it would always seem to be a önothingö that was a ösomethingö because it would still exist in some kind of spatially defined place.

Now, scientists talk, not about removing air with a vacuum pump, but about removing energy itself from space. I’m not sure there is a öpumpö for this, but maybe we are actually describing one of the functions of the particle collider. Ironicallyö mysteriouslyö what you might think would happenö less and less and less energy until there is no energyö is not what happens at all. Let Holt explain it: öAt a certain point in this energy-draining process, something very counterintuitive will occur. The Higgs Field will spontaneously emerge (I can’t help jumping in my mind to the process philosophers and their emergent evolution). And, this Higgs Field cannot be gotten rid of, because its contribution to the total energy of the space you are trying to empty out is actually *negative*. The Higgs Field is a -somethingöthat contains less energy than a -nothing.ö Then, the field creates particles that wink in and out like the interactions of the crowds in Times Square on New Yearös Eveö (51-52). It might help to read this quotation a few times. You may experience the impact of a Zen mantra or, like Heidegger said, the impact of the question of why there is something rather than nothing.

Adding to the fascination is the basic phenomenon of movement of energies within the Higgs Field that create *matter*. It is almost *creatio ex nihilo*. There was önothing,ö evenö for the particle physicistsö less than nothing, and then there is something. So, perhaps there could be a creation without a Creator, something that rises out of nothing.

Unfortunatelyö I guess itös unfortunate, but maybe notö we are still no closer to any kind of ultimate, absolute answer. The most precocious child would simply say: öWell and good, curioser and curioserö (to quote Alice), but where did the Higgs Field come from? Where did the space it exists in come from? Who created these intriguing energy and particle fields to begin with, and who created the creator(s)? Is the word *who* even the appropriate word to use? We push the horizon of our knowledge further and further only to be forced back to the question, The Question: öWhy is there something rather than nothing?ö

The Promised Reinterpretation

Recall how I earlier created a kind of preamble that affirmed my Nietzschean perspective that there are not *Truths*, only interpretations. And, I absolutely do not see *only* as a limiting word. I see it as a totally honest word, relating to the condition of existence as it actually appears, and an inviting word in the sense that it serves as a catalyst to this ongoing great conversation that I earlier described.

So, what I want to do now is to reinterpret the entire question, öWhy is there something rather than nothing?ö In doing so, I almost sense that I am turning Heidegger totally on his head, and advancing a set of ideas that he would never have agreed to in the slightest. On the other hand, part of me feels that I may be getting to precisely what Heidegger, Nietzsche, Sartre, and Camus were advancing in their differing/supporting understandings of existentialism, andö more importantlyö their movements in the direction of understanding what it means to be an *authentic*

human being. So, I am not blatantly offering a strange exegesis of Heidegger. I am, rather, attempting to offer a reinterpretation of öWhy?ö

Taking a bit of a cue from Nietzsche, who talked about öHowö questions and öWhyö questions, I want to suggest that these are good descriptors of two distinct types of questions. In my reinterpretation, a öHowö question would be a *backward-leaning* question that primarily has as its reference point the past. For example, we watch a magician perform a trick, and we ask: öHow did he do that?ö In other words, we want to pull the curtains back and look at the apparatus that was constructed to make the trick happen. If we can see the construction as it was put together in the past, we can understand how the trick was accomplished. If we can see the card when it is hidden in the sleeve or the trick rubber thumb, we understand what kind of causative factors preceded the trick in the past. Similarly, the question can be asked: öHow did we lose the football game against Alabama last week?ö Clearly, the question is a *backward-leaning* question, and through film studies that are a record of the game, certain mistakes in strategy and performance can be isolated that constitute causative reasons for the loss of the game.

Why questions can be interpreted as being *forward leaning*. A *why* question can go deeper, in some sense, than the techniques and tactics of *how* questions. In Robert Hartman's language, a *how* question is more systemic and particularly more extrinsic, while a *why* question would be more intrinsic. The best way I can describe the *why* question is that it involves the quality of öpurpose,ö a more internal and personal dynamic than *how*. In this sense, the *why* question involves öintentö and thus clearly orients more toward the future than toward the past. The *how* question is more of an exploration of where we have been, while the *why* questionö in my reinterpretation and precise usageö is more concerned with the öpurposeö and öintentö that empowers where we are going. The *why* question more adequately frames the primary movements of our existence as human beingsö from the past, through the present, and into the future. The *how* question would be more from the present into the past. Clearly, there are individuals who become obsessively engaged only in the past tense of their lives. They may suffer from some sort of dementia that has eliminated present tense experience, or the present may be so difficult that they form a type of denial that allows them to exist in some sort of virtual öGolden Ageö that exists in the past of their constructed memories and may have little to do with the actual reality of the past that did occur at some point in time. Following Heidegger and Nietzsche pretty closely, to live in such a past tense existence would not be *authentic*. In like manner, to simply live in a future of hopes, dreams, fantasy, and ambition would not be *authentic* either, of course, but there is at least some chance of authenticity if the movement is out of a past, through a present, and into the future where the present is as real, immediate, awareö existentialö as it can be. The *how* and *why* questions allow for a öframingö of the present with past and future respectively, but the *backward-leaning*ö in our precise definitionö *how* question is inadequate by itself. The *forward-leaning*ö in our precise definitionö *why* question may be inadequate by itself as well, especially in the pragmatic and tactical dimensions of actual living activities, but the *why* question would perhaps seemö at least in the direction our interpretative conversation is takingö to have a greater adequacy or be more essential.

Jay Morris, Director of Yale New Haven Healthcare Systemö öInstitute for Excellence,ö makes a very insightful distinction relating to the two questions. Morris believes that the *why* is probably always inherent in the *how*, but that it is not separated out in a way that reveals its distinctiveness and additional direction of concern. In fact, he continues, because the *why* is not separated out so that it can stand on its own, it is probably subsumed under the *how* and its force essentially lost. Following Hartman's language, which Morris knows well, he talks about how

work/life can be divided into three basic categories of differentiation: (A) *What I do* primarily a *Systemic* fact of what I do compared to what I do not do— I am a fireman, not a doctor; (B) *How I do what I do* primarily an *Extrinsic* expression of tasks, processes, and tactical functionality of carrying out my work; and, (C) *Why I do what I do* primarily an *Intrinsic* expression of realities such as öpurposeö and öintent.ö Each of these three, differentiated categories carries some degree of value and involve varieties of evaluative consideration. The intrinsic öWhy" would, however, be the most dense, complex, and sophisticated arena of value and valuation. In regard to the modern workplace, we tend to diminish potential by focusing primary attention on *what* and *how*, and leave little time for *why*.

The terrifying events at Shady Hook Village of Newtown, Connecticut, that took place before Christmas in 2012, give a profoundly existential reference point for this entire discussion in many ways. The cruel deaths of twenty children and six of their teachers required the most intricate of *how* questions, and criminal investigators worked for weeks trying to put together the causative and process factors relating to those awful events. Maybe, they rightfully reasoned, some *how* question answer could give some spark of explanation. But most people spent little time being consumed with questions of *how*. The real matter was *why*, including those kinds of deep questions about *why* a twenty-year old near child could do this, and even deeper questions such as *why* would a loving God allow such a travesty to occur. These were the real questions that had to be encountered existentially at a distance by all and exponentially in an unfathomable manner for those most immediately touched.

Clearly, Jay Morris's concept is accurate: *why* is inherently part of the *how* question, but as Morris was also clear— there is something in the *why* question that transcends the *how* questions. And, in regard to Shady Hook, the *why* question is distinctly forward-leaning. The *why* is asked in a way that radically pushes forward an agenda into the future that tries to diminish any horror like this from ever happening again. The *why* all but begs for real concrete actions more than conceptual answers. The *why* questions of the tragedy of Shady Hook become infinitely more important than any *why* questions of why there is something rather than nothing, for you see— a 9 am call to Shady Hook with the question öWhat's happening?ö would have been answered on a very ordinary morning with öNothingö or öNothing much.ö Then, out of malevolent choices of a human being, accompanied by terrible choices about gun control and lack of available help for the mentally ill, a öNothingö was turned into a öSomethingö of the most agonizing consequence.

President Obama addressed the nation and people of Shady Hook/Newtown. Toward the end of his eloquent comments, he said: öAll religions have two questionsö Why are we here? What action will give our life purpose?ö By seeing the *why* in terms of actions borne of choices that give purpose, the *why* is distinctly forward-leaning. Then, the President continued: öWe spend a great deal of time groping in darkness.ö Perhaps, his ödarknessö is the ultimate darkness of unanswerable questions about beginnings. Finally, he said: öBut, one thing we can be sure ofö the love we have, especially for children. That is Truth. That is what matters.ö So, there is a certainty, a beginning point that may even stretch into the world of animals much lower on the evolutionary chain or even the ecosystem of the plantö the love of children. Then, the question becomes, öWhat are we to do about this Truth?ö This is the forward-learning *why* of purpose. We are again back to the place of the fact of loveö actions borne of human choicesö having a greater ultimacy than admittedly interesting questions about beginnings. In this regard, ethics may trump cosmology, and even some possible cosmological *proof* or *truth* that could eliminate divinity in any traditional sense does not eliminate ethics.

More simply stated, and in a less emotionally disturbing way, when I was about ten years old, and my very inventive younger brother about eight, we became infatuated by our father's locked tool cabinet, mounted on a wall in our garage with a front glass door that allowed you to see his best and most expensive tools. While many other tools were easily available for some of the tasks we wanted to perform, on one particular day that I remember very well, the locked door and my father's absence at work made my father's tool cabinet more appealing. My brother and I became infatuated by the appealing possibilities suddenly before us.

Words such as *infatuation* and *appealing* would seem to be more *forward-leaning*, and thus more in the arena of the *why* question. Both words could more easily generate öintentö and öpurpose,ö and thereby determine something of the choices we would make to move into the future and the choices that would literally create our existence in that future. As we stood peering into the tool cabinet, the future was literally and actually önothing.ö Our choicesö öintentsö and öpurposesöö would establish a ösomething.ö

My brotherö again, my unusually inventive brotherö concocted the idea of melting wax and some random pieces of soft plastic from my chemistry set and pouring the liquid into the lock. I provided the encouragement and allayed his fears that a failed attempt at what we were envisioningö and thus being *caught*ö was of small likelihood. We poured the liquid into the key slot on the lock, waited a few minutes, and pulled the hardened mixture from the lock. His plan had worked perfectlyö perfectly. We held in our hands a small, waxy plastic key. The next step was simple: take a small piece of aluminum from the scrap pile under my father's work table, draw the outline of the key on the aluminum, and use a file to create an exact replica, metal key. This done, our created key slid snugly into the lock and, with the slightest normal turn, the lock opened, and the tools were ours for the day.

In our excitement, we did not think to draw an exact pattern of the placement of the tools, and when we reassembled everything, we were only öpretty sureö that we had done it correctly. We were a bit anxious as our father made his predictable trip to his workshop after dinner, and after an hour or so we were congratulating each other on the öperfect crime.ö

Then, the call came: öBoys, come down here.ö We probably walked in epitomizing the worst guilt. Then, the question: öHave you been in my tool cabinet?ö There was a first impulse to lie, and I'm sure my brother was getting his blame hypothesis formulated about as fast as I was. There was the impulse to say, öHow could we have gotten into a locked cabinet?ö, but we had already been warned about the futility of answering questions with questions. We admitted what we had done, and waited for the punishment to come.

Instead, my fatherö moved by the high value he placed on process and tacticsö asked: öHow did you do that?ö We told about the created key, which he seems to feel was a bit incredulous, but when the key was produced and demonstrated, he clearly was impressed, even to the pointö after collecting the key and the promise of no repeat performancesö that there was no punishment. His *how* question was obvious and clearly *backward-leaning*, and required a detailed description of what had happened in the past.

He must have felt that we had achieved the level of a öteaching momentö there in the garage, and his questioning took a different turn. The *how* of the key now fully explained, he asked: öThen, why did you do it?ö Suddenly, we were in the arena of a much more complex and sophisticated question. We experienced a öfelt realityö of the question, what we might later identify as an öexistential experienceöö perhaps with a degree of angst or dread. The proverbial öbarö of inquiry and engagement had suddenly been raised to a next, new level. There was not an easy answer, but certainly a moment of forced reflection and contemplation. Our faces even looked

different than they had looked when we approached the *how* question and, mostly, looked backward. There were a number of responses—*not answers* so much as dialogue that extended a conversation, and as much within us as toward our father. We were infatuated with the possibilities. It would be *fun*. There was a challenge, and a challenge multiplied in the prospect of actually fooling our father. We could do it, so *why not?* If we didn't try it, we would never know. We had clearly become involved, as our primary motivation of choosing—*all else simply being tactics*—with *intent*, *purpose*, and *forward leaning*. We were projecting into the future, and then moving in the direction of that projection. *Something* was being created, not so much out of an absolutely literal *nothing*, but at least out of an absolutely literal *not yet*. *Why* had a great deal more to do with *not yet* than *how ever could*.

On perhaps a much more profound level (although a child's created *key* may not actually be any less profound than a recognized work of art), I can remember going to New York City to the Museum of Modern Art to see a Picasso retrospective that had been mounted at MOMA before Picasso's *Guernica* was returned to Spain to be permanently housed. I had seen many, many pictures of *Guernica*, and I understood that it was a depiction of Picasso's response to the Nazi invasions in 1937 of the Basque village of Guernica in the Spanish Civil War prior to World War II. The Nazis used their ruthless attack on the village to show their support for the Spanish dictator, Franco, and also to test the technology of their new and deadly Stuka dive bombers. I knew a number of *facts* about the painting. I knew quite a bit about *how* the events of *Guernica* had occurred, and even something of the *whys* that were inherent in the *hows*.

We stood in a tour line that inched its way up a back staircase to a next floor of the exhibit. There were elevators, but the museum was clearly wanting to create an experience—maybe even this *existential* experience that we've referred to several times now. We turned a corner, and there it was looming over us, almost reaching out to consume us in all of its *grandeur*—a grandeur that can be measured by size (approximately 12' x 26'), but a grandeur that had nothing to do with physical metrics.

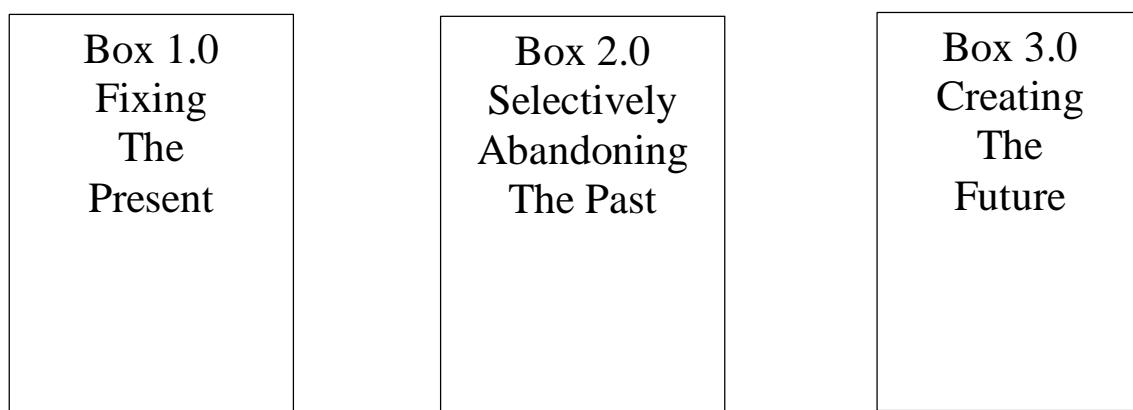


Because of the values imposed on me in my upbringing which, like the upbringing of many people of my generation, had been more tactical and extrinsic, and, because of the influence of a highly mechanical father who taught his sons to take things apart, see how they worked, and actually fix them—he had us working on lawnmower motors about the same time we started grammar school—I could not help but wonder *how* Picasso had tactically accomplished the

gigantic piece. There is plenty written about this fascinating aspect. I later came to understand intellectually *how* the piece fit into a larger set of systemic and extrinsic artistic productions and presentations designed to oppose Franco's tyrannical regime. He used his paintings and celebrity to raise money worldwide to help finance the partisan resistance. So, the *how* in different ways is primarily a matter of the Systemic and the Extrinsic.

Yet, the most striking and important issue relating to the painting—the *intrinsic* issue—was the question of *why*, the *forward-leaning* intent and purpose of the painting that would create a view toward war not unlike what his fellow Spaniard, Goya, had done in his profound anti-war drawings, etchings, and paintings from the Napoleonic period. The *why* was so intrinsically profound that the *how* is transformed in a way that it becomes a medium for the *why* to find expression and to be empowered. As the famous art critic and philosopher, John Hospers, once explained, Picasso's work conveyed not truth about the circumstances surrounding Guernica, but truth to Guernica that brings the viewer into the horror of war in a way that the viewer is forever changed. There may have been nothing or not much of anything within the viewer regarding the horror of war before *Guernica*, but afterwards there is creation, there is a something that is unique and powerful, so intrinsic at the end of the day that it is beyond words. *Guernica* is a leaning forward into the future, creating something that is new, something born of *why*. This movement to something new, making choices that allow you to move toward the future is a much more productive use of human energies than moving back in some kind of infinite regress toward a past that can only be subject to penultimate interpretations at the very best.

I am impressed by the work on Vijay Govindarajan⁴ whose book, *Reverse Innovation*, which describes the best and most authentic innovation as the creation of a new future as opposed to a rearranging of random elements of the past, is gaining significant attention in business development and organizational leadership circles. Govindarajan made his first marks as Professor in Residence and then Chief Innovation Officer with Jack Welch at General Electric. Later, he taught at Harvard and is now head of the Tuck International School of Business at Dartmouth. In a central conception from his work, he advances a kind of three box theory of how human energy is used in work/life. The theory can be quickly encapsulated in the following graphic:



Govindarajan certainly sees value in energies given to dealing with present tense problems. Any intelligent person or organization would. However, if we get lost in the weeds of only present

⁴ Vijay Govindarajan and Chris Trimble, *Reverse Innovation*. Cambridge: Harvard Business School Press, 2002.

tense tasks and very short-term agendas, we surrender vision and the ability to effectively move toward an enhanced future. We mostly keep trying to incrementally reduce the inefficiencies of the present. Many people are compulsively occupied with the present and solving of only the most near-terms fires that must be extinguished today. To be consumed with the present weeds of a stack of demands on the plates of our lives that seem almost always to fill up with tasks faster than we can finish our tasks prevents forward leaning, so Box 1.0 is primarily an engagement with *how* issues and not *why* issues. It is impossible to build an authentic work/life œcultureö unless *why* is a vital part of the overall equation.

On a higher level of challenge, there is the need to selectively move beyond aspects of the past that may have even become sacrosanct œuntouchablesö in the modern workplace. It is amazing how much is done simply because œthis is the way it is done and has always been done around here.ö It is very difficult to selectively abandon the past, especially when doing so can involve abandoning hallowed processes, places, and people. Because it is easier, and people tend to take the path of least resistance, Box 2.0 may be a wonderful idea, but an idea thatö more often than notö is defeated by the power of the past. Again, we are stuck in backward leaning circumstances that defy vision, and we make progress only in painful inches or erratic disruptions of frustrated emotional explosions that often do more harm than good.⁵

The highest level of challenge is to envision a future based on high purpose and high intent that believes the future can be the result of forward leaning choices. In this visioning process, no longer does the past hold the future hostage. It is understood that little can be done about where we have been, but that a great deal can be done about where we are going. Box 3.0 is characterized by the kind of *why* questions of high value that often express themselves in the famous Bobby Kennedy corollary of the *why* question, œ*Why not?*” We ask œ*Why?*” and œ*Why not?*ö as part of intentional œmapsö that guide us into the future, not a merely inherent, undifferentiated components of *how*. I have also been greatly influenced by the work of the famous health-care futurist, Leland Kaiser. In response to the most ardent and factually complete, *how*-related, backward-leaning answers, Kaiser would tend to say, œ*So what?*ö Then, in a following question that is filled with œintentö and œpurposeö in the most forward-leaning way, Kaiser would say, œ*Now what?*” I great deal of my re-interpretation of “*Why?*” can be surrounded by the œintentö and œpurposeö of Kennedyös “*Why not?*” and Kaiserös “*What now?*”

Holt, John Leslie, and Hegel

Holt moves very close to our reinterpretation of *why* on the edges of his own writing. Early on, he says, œThe attitude one takes toward existence as a whole [may have causative power]. It is only by exploring the question *Why is there something rather than nothing?* that we might come to see the value of existence in a rational light.ö (33) The emphasis on human attitude and human valuing as causative factors that move chaos, a typical synonym for œnothing,ö into creation, a typical

⁵ In a discussion group at the Mohawk Home division on Mohawk Industries in Georgia, I made the presentation on Govindarajan as part of a leadership development forum. In the question and answer period, one employeeö a rug design expertö suggested that a Box 2.5 was needed, that Govindarajan had missed an important point. He suggested that a Box 2.5 would involve simply copying what someone else had done, and especially doing so if what you were copying had achieved some degree of recognition or success in the market. There is an interesting combination of *how* and *why* in this thoroughly exceptional insight. There is also proof that our œgreat chain of conversationö can take very interesting, and perhaps unexpected, turns if the conversation is given the chance to take place.

synonym for öexistence,ö demonstrates the way in which *why* can be forward leaning in terms of öfor want of better or more wordsö öpurposeö and öintent.ö

He continues, coming very close to Hartmanøs *axiology* (science of value), öCould it be, for instance, that the world exists precisely because it is, on the whole, better than nothing?ö (33) At least, better than nothing in the evolution of choices made from the perspective of the way in which öbetterö might be constituted and realized in human actions. Holt describes a group of philosophers who call themselves *Axiarchists*, those who would creatively determine the direction of the world by value choices. öThey believe that the cosmos [the world *as we experience it*] exploded into being in answer to a need for goodness.ö (33) This thought is provocative at the very minimum, and of course it needs clear explanation.

He begins the explanation, öIt has even been conjectured that the human mind plays a critical role in the self-causing mechanism [as it is self-causing in regard to almost anything that *can be conceived*]. Although we seem to be a negligible part of the cosmos, it is our consciousness that gives reality to it as a whole. On this picture, sometimes called the öparticipatory universe,ö reality is a self-sustaining causal loop: the world creates us, and we in turn create the world.ö (35) Holt also notes: öthe most extravagant species of cause in the Aristotelian scheme is the öfinalö causeö the end or purpose for which something is produced.ö (9) öFinal Cause,ö with its emphasis on öpurposeö would, unlike Aristotleøs other forms of backward-leaning causation, be forward-leaning toward the future.

We are at something of the point of George Berkeley that öexistence is perceptionö (*esse est percipi*), a philosopher not mentioned by Holt, which would move us toward the idea that consciousness has causative power by which existence is created. As with all of the supposed proofs and theories of particle physics, Berkeley is unsatisfying in his öGod of the gapsö filler that answers the question of who/how made the creating mental consciousness by concluding that the all-seeing, eternal eye/mind of God created any and all of the other expressions of creative mental consciousness that evolved over time.

On the other hand, Berkeley does have a point. The existence that I uniquely experienceö and it is unique because no one else can experience my exact existence, and I cannot experience the exact existence of any other human being or animal or whateverö is created by me. The premise is as simple as fifty people being eye witnesses to a wreck, but when questioned in court, seeing the wreck in fifty different and sometimes almost totally contradictory ways. Clearly, I also have the capacity to create some existences that are much the result of the way in which I *want* to see that existence. Since we are uniqueö I believeö and there has never been anyone exactly like any one of us or never will be again, the existenceö realityö as I perceive/create it was önothingö before I created it, and became ösomethingö only after I created it. In the strictest, most absolute use of the language, I did not create out of total nothingness since I was there prior to me being there perceiving/creating, but the existence that I create out of my unique consciousness and intentionality was not there before in the most literal sense of the word. Therefore, I am always imaging, imagining, and projecting from the present into the future. I am almost always, in one way or another, leaning forward with öpurposeö and öintentö that is so much a part of who I am and what I do, that I am creating the existence that I am entering.

Nietzsche said that he could live without an öadequate *how*,ö without an adequate answer or explanation of *how* that which is got started. We do this all of the time. We continuously use machines and depend on machines that we have little or no idea *how* they work. In regard to an öadequate *how*,ö he was willing öto stare into the abyss, and let the abyss stare back at me.ö However, he did not feel that truly authentic, human beingsö in the finest sense and potential of

those two words—could live without an *adequate why*, without shaping, forming, creating, structuring intention and purpose. He was wrong in that assumption: people live without authenticity, conscious intention and conscious purpose all the time. It takes little or no adequate *why* to walk around and breathe air. But, is walking around and breathing air actually *living* in the sense that Nietzsche wanted to define and experience living that is truly *human* in the fullest sense of the word? Of course, it is not. . .

Therefore, the *adequate how* is a backward-leaning explanation or causative implication that might be fine and interesting to have, but that may not be essential. The backward-leaning, *adequate how* is dispensable. The *adequate why* is the forward-leaning intention and purpose that has the power to dramatically impact, shape, and create the world in which we live. Without this forward-leaning *adequate why*, the ability to really live authentically will be more accidental and serendipitous (and no one turns his back on serendipity or useful accidents of luck), but not the result of conscious intentional choices. The re-interpreted *why* carries us forward. The traditional, conventional *why*, a synonym of *how*, keeps us digging deeper and deeper into the ultimately non-revealing cave of the past.

In fact, Heidegger—who gave us the most popular expression of the question, *Why is there something rather than nothing?*, may not need quite as much re-interpretation as might be assumed. He wrote clearly that the dominant mode of authentic existence was *Sorgen/care*. To live with care toward the universe, humanity, and self would require an *adequate why* for caring, a conviction that caring would constitute a means of creating something that is better than what has been, and actions of care are most typically seen as actions of intentional purpose carried out in real life in executable actions. Caring, by almost any definition, would be a forward-leaning, creative act desiring to establish some kind of new and better world.

Holt devotes an entire, major chapter of his book to the generally unknown and highly exotic work of John Leslie who is typically described as a speculative cosmologists and an extreme axiarchist.⁶ Just the very use of these words raising my eyebrows of suspicion, but Holt takes the work of Leslie in a very serious manner. Holt had the opportunity to do a personal interview, and Leslie does not give many of these. He refers to Leslie as the *swittiest* of all the scientists and philosophers he interviewed, and I am left wondering if his fascination with what must be a very interesting person may have transferred itself to giving too much attention to Leslie's views.

Leslie is an Oxford educated philosopher from England who taught for nearly thirty years in Canada. His writings have attracted an almost cult status, especially his doomsday materials that advance the somewhat peculiar or maybe not view that mathematical and scientific probabilities suggest that the world/Earth as we know it will likely end up destroying itself in the relatively near future. Leslie may have some real personal conviction about the view, as he lives a rather hermetic life in retirement in near isolation on the west coast of Canada.

Leslie's position, as extreme axiarchism, could not help but attract my curiosity because of the common Greek etymological root that his position shares with Hartman's axiology. As was stated earlier *axiarchism* literally means value rules. By this, he means that the original something-out-of-nothing world comes into existence because he is *required by* and *caused by* goodness. The position is absolutely Platonic in the sense that in Plato's *Republic* the idea is advanced that the highest, perfect form is the Form of Goodness, and that its perfection must create corresponding in-formed substance, or its own perfection cannot be adequately established.

⁶ John Leslie. *Value and Existence*. Totowa, NJ: APQ Library of Philosophy, 1979.

Therefore, öThe ethical requirement that a good world exist was enough to create the universe.ö (399)

I adamantly agree with Richard Dawkins response to Leslie and will always insist that Leslie's come back at Dawkins' criticism is one of the shallowest that I have ever seen. Students in my introductory logic classes from thirty years ago would have seen the rampant fallacy in Leslie's argument. Dawkins said, öHow could so piffling a concept as goodness explain the world's existence? You might as well appeal to Chanel Number Fiveness.ö (202) To which Leslie responded, öWell, I don't think of goodness as just another quality that is slapped on things like perfume or a coat of paint. Goodness is *required existence*, in a non-trivial sense. Anyone who doesn't grasp that hasn't reached square one in understanding what ethics is all about.ö (202) In other words, Dawkins' stupidity that keeps him from grasping what Leslie is saying defeats Dawkins'ability to see the clarity of Leslie's expression. There is a ödefectö in Dawkins that keeps Leslie's idea from being abundantly clear, and anyone not seeing Leslie's idea must also have the ödefect.ö

There may be a reasonable, middle ground here that is supplied by Robert Hartman. Hartman did see *goodness* as a profoundly causative idea. When a person has an idea of the *goodness* of some object, person, or process, they have the idea of how *and* why this reality could be at its bestö or, at least, at its *better*. The imageö an ideaö of this reality at its better/best, for many people, can act as a catalyst to establish choices and actions that move the reality in the better direction. Therefore, the idea of *goodness* can have the power to impact choice and action. On the other hand, this idea has occurred within a human being without giving any sense of where that human being ultimately came from, and the idea of some kind of necessary existence/Being is not one step closer to being solved. The issue of *goodness*, therefore, works when it leans forward, but not when it leans backward.

Leslie does bring the conversation back to Heidegger in what may be a useful way. He recalls an interpretation of Heidegger provided by the theologian Hans Kung, an interpreter of the writings of the Judeo-Christian tradition of significant substance and acuity of insight. Kung believed that for Heidegger, öThe word *God* is just a label for a creative ethical principle that's producing the worldö (204). To me, this is an extremely essential point that Holt chooses not to explore in any depth. I struggle with the word *just* in the quotation. The word implies *mere*, or *only*, or something of a lesser degree of importance. However, if it is true that we live in the midst of language, a wordö at this point the word *God*ö that becomes the almost axiomatic formula for ethical principles that are influencing and forming the world in a positive manner, or that can possibly influence and form the world in a positive manner, is of potentially profound significance in a way that defies the use of the term *just*. This formulation is obviously and absolutely *not* a öproofö of the existence of God, but the fact of the existence of the word *God* is beyond doubt. *God*, the word, becomes a tremendously desirable reality that is leaning forward, and that does creatively (one would hope) produce the world in a better way. In this instance, we may need the word *God* as an axiomatic expression of ethical principles as much as we need the axiomatic expression, $E = mc^2$ in order to fully order our world in a way that fuller potential is achieved.

Holt almost seems to *want* to be convinced by Leslie. All that is required for Holt is to embrace three conditionals: (A) if value is objective, and (B) if value is creative, and (C) if the world is good, then öyou've got your resolution to the mystery of existence.ö (210) However, these are impossible öifs.ö Value and definitions of goodness that appear in any öobjectiveö expression are ultimately some of the most *subjective* and situational expressions that human beings ever have. Value can certainly be a creative catalyst, and one would hope that it would be so more

frequently, but it does not have to be. People can do nothing in the face of obvious negatives and obvious evils—or what they subjectively understand as evil. And, at best, the world may be on its way towards goodness at times, but always be haunted by fluctuations of not-goodness that makes the absolute achievement of goodness a yellow brick road that leads off into infinity. The conditions of *proof* or *Truth* have become nearer to us in no perceptible way at all..

Leslie even becomes his own most powerful detractor. In response to Holt's question of whether he (Leslie) personally *believes* or has *faith* in his own system of conclusions, Leslie responds: “I feel constantly *embarrassed* by the idea that I ought to be attracted to my system because, well, wouldn't it be lovely if it were true. That is just pie in the sky, and I very much dislike it. I don't have anything like *faith* in my Platonic creation story. I certainly haven't *proved* anything. Almost nothing of philosophical interest strikes me as being possible. I'd say my confidence is just a little over 50 percent. A lot of the time, I feel that the universe just happens to exists and that's it.” (209)

Holt wonders, in retort to what it seems that he may not want to be hearing Leslie say, “You must find it gratifying that a significant minority of other philosophers have come around to your view?” Leslie ends the conversation: “Or to other views that are equally crazy.” (209)

So, the stake is pretty much driven in the heart of any absolute backward-leaning *proof* or *Truth*. The only factor that keeps this assemblage of *proofs* and *Truths*, in Leslie's word, from being “crazy,” is that at times there is some kind of forward-leaning implication that can be gleaned by carefully extrapolating at some “edge” of insight that might have useful meaning. It would take some kind of Augustine-like revelation to change the fact that the “proofs” and “Truths” are inadequate, intentionally deceptive at times, usually illogical when tested by any degree of rationality, and even just plainly false. We are forced back to the very beginning of attempts at explanation before anything even akin to *reason* entered the picture.

I wish Holt had spent a bit more time with the possible implications of his multiverse idea. If there were millions or trillions of universes aligning themselves in terms of accomplished potential along a bell curve from worst to best, most primitive to most sophisticated, then any single universe would have its own bell curve of potential. This potential would then always be swaying from positions moving toward worst to positions moving toward better. The question would then be what the catalyst for this potential movement is. The catalyst could be totally unconscious, and outcomes could range from totally awful luck to totally wonderful luck. Or, the catalyst could be human awareness enhanced by some conscious dialogue about what constitutes “goodness” in particular situations; or, there could be the conscious interjection of the forward-looking *why* that involved issues of value and valuation. There might even be room for Leslie to embrace a forward-looking philosophy and abandon a back-looking philosophy (which it seems is exactly what he actually has done). Then, a set of concluding movements in Holt's own writings, as they move to Hegel, would at least provide a smoother and more integrated transition.

Holt's excursion into Hegel, as he sits contemplatively at that beautiful *Café de Flore*—the famed hangout of Sartre and de Beauvoir on the Boulevard Saint-Germaine in Paris, is much more valuable in the end than his infatuation with Leslie. Sitting at the *Café de Flore* was no accident. Here, in the winter of 1941-42, during the Nazi occupation, Sartre would show up every day, early, in order to sit close to a warm stovepipe. He would order a cup of tea with milk—all that he would order for the entire day. Occasionally, he would retrieve spent cigarette butts and place any tobacco that was left into the pipe he smoked. In this circumstance, he worked through Hegel and began his epic *Being and Nothingness*. Holt almost had to be in this setting to bring his book toward its conclusion.

Hegel famously said that in the beginning there was öPure Being.ö This öPure Beingö is, at one and the same time, pure thought, pure abstraction, and pure immediacy. In my own expression, this can make sense if all of these öpureö realities simply mean öPure Awareness.ö To answer the question, öAwareness of what?,ö I have to respond, öAwareness of that-which-is, and this includes the world and myself in the world, at first undifferentiated as a particular and unique öSelfö that has any degree of differentiated identity. Maybe, I am envisioning the experience of the newborn in first arrival from the motherö womb, although there may be many kinds of öfirstö experiences that would end up being very similar. This öPure Awarenessö may be the brute facticity of Heideggerös *Da-seinö* Being-there. The undifferentiated experience of öTruthö as *aletheia*—unveiling, or his *Anwesen des Anwesendenö* the arrival of that which arrives, may be taking place. öPure Beingö is the totally abstract, totally mental, totally immediate experience of *is-ing* or *is-ness*. At one and the same time, this experience is öEverythingö and it is öNothing,ö or it is a öSomethingö that is a öNothingö because it is totally undifferentiated as yet.

Then, we see the beginning of Hegelö dialectic, because remaining in the öSomethingnessö/öNothingnessö of öPure Beingö/öPure Awarenessö is to be irrevocably stuck. A mediating movement occurs in the dialectic by introducing the reality of öBecomingö just as Heraclitus had modified Parmenidesö position almost 2500 years ago. In öBecoming,ö pure awareness begins to become differentiated as pure experience begins to be differentiated in the categorizations of memory, language, and understanding into specific, singular experience; nothing becomes something. This process of öBecomingö does not end until death as further differentiation and complexification through experience, memory, language, and understanding continues to take place, and the existential category of öunique to meö that defines my personal identity and my world evolves. öBecomingö then makes the point of my re-interpretation of öwhy?ö since öBecomingö is always and forever forward-leaning. The conscious and intentional interaction with öBecomingö through my real choices then affirms my authenticity. By leaning forward, there is no need to lean backward toward some Platonic Demiurge or Hegelian *Absolute Spirit*, and most of the theological explanations are avoided.⁷

Within the dialectic, especially as it is advanced by language, the ögreat chain of beingö again becomes öthe great chain of conversation.ö We are back to Holderlinös assertion that we live in language, and word formulations that were never before become now, and then these word formulationsö ever open to modificationö shape the future that we are entering and creating as we go forward.

⁷ There could be one, rather profound exception to what I am saying here. What if öbecomingö takes on the form of öcopying,ö as was explained in the reference above to the Mohawk Industries designerös comment on the three boxes of Govindarajan. There is no question that many people öbecomeö/evolve by making choices that are essentially öcopyingö what they see in the lives of others, particularly the lives of others virtually encountered in the mediaö attention to movie stars, athletes, and other celebrities. This öcopyingö is, of course, the life blood of advertising. However, such öcopyingö would seem to be the very antithesis of human authenticity and the diminishing of any awareness of human uniqueness. *How* a celebrity got her hair to look a certain way, and her makeup, and *how* I can replicate that seem to be millions of miles away from any authentic questions of personal öpurposeö and öintentö on the finest levels of those words.

Zen Buddhism: An Afterthought

We cannot help but try to move in the directions of explanations that are logical. It would accurately seem that öThis is the way our minds work,ö or at least the way in which our minds have been ötrainedö to work. Our culture of rationalism, whether it is expressed in a research scientist searching for a cure for cancer, or in the variety of detectives and investigators like those who have populated our lives in fiction, television, and movies (Sherlock Holmes, Agatha Christy, James Bond, Perry Mason, Sam Spadeö the list is much, much too long to enumerate even approximately), we have pretty much been led to become convincedö even without knowing even slightly about Leibnitz and his öPrinciple of Sufficient Reasonöö that every question, problem, or mystery ultimately will have a logical explanation. We want life to ömake sense.ö If a culture is manifested in its value system, there is no doubt that our Western culture more highly values rationalism than any other form of human engagement with reality.

Such an infatuation for discovery and finding answers is a öway of be-ingö that has its own, special place, and in that place it should be admired and advanced. We need a cure for cancer, without any question or equivocation. But, this particular rational öway of be-ingö simply does not need to be the only way; nor does it necessarily need to be seen as the öbetterö way. Let us have a full gamut of Nietzsche's öadequate *hows*,ö but not to the exclusion or diminishing of öadequate *whys*.ö Ultimately, it will be the *why* that guides and directs the installation of the *how*. Without the *why*, the *how* can become unfettered and all too easily self-destructive.

Some people have suggested that we must await a next level of the development of our brain, orö with supercomputer technology and the extensions of the information age of our ötwitter-verseö our corporate brains (when, perhaps, the öcollective unconsciousö becomes the öcollective consciousö), and then we will be smart enough to gain the ultimate explanations. Without a doubt, this waiting is exactly what our Western culture of rationalism not only hopes for but fully expects. For now, before the mysteries or as-yet-unanswered questions of our existence, we may have, by comparison, only an animal-like that can understand a great deal about the actions of human beings, but still not comprehend what these humans have built and why they use it in the way they do. But our now-limited brainsö albeit in some distant generation in the futureö will mature and all the answers will come.

These kinds of approaches and anticipated approaches are distinctly the result of the culture we are part of in the Western world at the beginning of the twenty-first century. The evidence provided by all of our technology and machines, compared to anything the world has ever experienced before, would suggest that our culture is on the right track. Explanations based on reason and logic have advanced us far beyond what we might have anticipated, and rather quickly, given the long march of history. And, if economics is the critical formula by which to judge the success of our rationality, don't we have the highest standard of living the world has ever experienced?

But what happens when we get outside of our own culture? We might not even have to get outside of our universe to some other component of a multiverse, when getting out of our culture might be all that we would need to öadjust our sights,ö so to speak. We might be able to have some ösight adjustmentö with information and insight already available from our own planetös history if we could have an openness to a new way of looking. The problem, of course, is that we have become so provincial and egotistical parochial, that we see no need to get outside of our own culture or to look at what is available in new ways. A second problem is that our culture has become

so pervasive on an international planetary scale that other cultures are racing to become as much like us as quickly as they can. All too rapidly, other cultures are losing an appreciation of their own uniqueness in an attempt to have more of the things available in the outcome of being öWesternized.ö About the only experience that we have with other cultures is our tourist trips to see the performances, places, and intentionally touristy representations that are engineered for us because our tourist money is so highly desired. We return with souvenirs, photographs, descriptions of oddities, and statements of relief about how glad we are to be öback in the USA.ö I regret to admit that I remember a third night in Rome after two weeks of travelling through Italy, only moments from a vast selection of the best Italian cuisine imaginably, and calling the concierge station in our 5-star hotel, to find out where the nearest McDonaldös was located. If other options of insight and experience are limited in the way that our taste buds can be limited by golden arches and the familiarity of Ronald McDonald, what new realities are we likely to experience, and what old realities are likely to be challenged?

What would happen if we really were able to embrace the ideas of other cultures that do not feel the same way about explanations that we do? Why would a non-explanation culture be any more wrong or right than an explanation culture? Does the only justification for right and wrong in regard to explanation and non-explanation of cultures stand on the shoulders of technological accomplishment and economic advancement? Is that technological and economic accomplishment quite as impressive if it also threatens to exterminate our culture? Is the efficacy of a cultureöö truthö dependent on the presence of sophisticated indoor plumbing?

Zen Buddhism, for example, would place a higher priority on existential, experiential awareness than on rational understanding. In fact, we Westerners may be more capable of Zen kinds of self-awareness processes (as opposed to *mental* or *intellectual* processes) than we might imagine. For example, there were many rational factors that I understood at one point and then another about the Eiffel Tower in Paris. I would have recognized it correctly on a school test from the second or third grade. But none of this rational understanding even came close to the experience of standing at its top and looking out onto Paris, or sitting on our hotel balcony on Bastille Day and watching it highlighted by fireworks far into the night. A more holistic engagement that transcends rationality may be a higher goal to attain than the singularity of rational explanation, especially when the next arriving item of rational data may cause all of our previous data, explanations, and certainty to evaporate in a moment. Rationality, and even its most determined conclusions, is a moving target that does not consume or last in the way that non-rational engagement does. There are many aspects of my wifeöö existence that I understand rationally, but it is likely that those non-rational aspects that I will never öunderstandö are what causes me to love her and want to be with her in as intense and long of an engagement that I can. (Please note that we have found our way back to the experience of love again as a reality of greater ultimacy than rationality.)

There are interesting östagesö that can be approached in the öconstructsö of the basic outlines of the Zen experience. The first step involves östillness,ö the ability to quiet our minds, our rational minds. For most Westerners, we are defeated by this first step because it is almost impossible for us to intentionally be still. If we are too still, we begin to become convinced that we are wasting time and need to be doing something. We live by the maxim, öDonöt just stand there, do something,ö as opposed to the distinctively Buddhist approach, öDonöt just do something, stand there.ö Our time is consumed by öto doö lists, and sometimes we seem to actually be afraid of solitude. Our propensity for öactionö is somewhat strange if we hear the Psalmist of our Judeo-Christian traditionsö a supposedly powerful component of our Western cultural valuesö saying:

“Be still and know that God is God,” albeit we probably are convinced that this stillness-knowing is a different kind of knowing from that we are accustomed to, and probably somehow inferior as well. We insist on proofs.

What could old Jews living in a desert three thousand years ago have known about knowing that really mattered? We also forget that important American, Henry David Thoreau, who chose to move into the woods at Walden Pond so that he “could live more deliberately,” so that he would not come to the end of his life and have to realize that he had never really lived. He wanted to “front the essential facts of life,” and we sense that his understanding of “facts” may have been very different from the prevailing understanding of “facts” in modern rationalism. But Thoreau may have been something of a proto-hippy, and the major railroad line that ran in earshot of Walden at that time, the busiest rail line in the United States, defined much more the direction the country and world were running in than an odd eccentric in the Massachusetts woods near Concord. It is railroads that we really need, not ponds in the woods.

If we are able to accomplish stillness in Zen, we begin to experience, in a second step or second stage, an increased awareness of our world and ourselves in that world. In some respects, at the initial stages of this experience, we do experience something of subject-object relationship, not unlike the subject-object relatedness of post-Cartesian rationalism than can easily lead to destructive Us-Them political configurations and enhancements of the power of rationalism with the power of egotism. However, if we are able to move beyond this initial stage of other-awareness and self-awareness, and this movement beyond is much easier said than done, we begin to experience an exchange of “whatness” for “thatness.” “Whatness” is a reality defined in some sort of limiting and truncating manner of rational constructs, rules, and definitions. “Thatness” is a reality allowed to exist beyond definition, and simply but most radically being allowed to be what it is. With “whatness” there is an incipient closed-ness, but with “thatness” there is a liberating open-ness.

There is a perfect anecdote that carries forward the implications of Zen’s message. A young couple have been married for a few weeks, and the young man comes home to find his new wife sitting on the couch in tears. He wants to know why she is crying—a clearly appropriate and expected, *rational* response to her crying that makes perfect sense. She responds to his questioning: “Why do you love me?” He searches his rational mind and begins to offer rational explanations: “I love you because you are so clean;” “I love you because you can cook better than your Mother;” “I love you because you are such a great driver.” None of the rational explanations that rise from the searching of his mind come close to working. She continues to cry. In exasperation, but really wanting to help, he says: “What did you want me say?” Trance-like, she responds: “I don’t want you to love me because of *what* I am. I want you to love me *that* I am.” Just being able to appreciate what she has said may mean that we have a better chance at a Zen type of engagement with existence than reason might suggest.

If we are able to accomplish a sense of “thatness,” we are at the point of a third step or third stage that Zen calls “satori.” This term is generally defined as “enlightenment,” but almost immediately “enlightenment” is seen through the lens of Western rationality’s concept of “enlightenment,” that last factor of information that solves the problems or allows some quandary to move into the arena of perfect sense. However, and this is critical, what Zen means by “enlightenment” is distinctly and absolutely *not* what Western rationality means by “enlightenment.” With “satori,” there is the conclusion that understanding as rationality is *not* ultimate. “Satori” conveys that rational understanding is ultimately limited, that it will always and even at its very best be penultimate. To use the axiological constructs of Robert S. Hartman,

rationality is Systemic and Extrinsic, but ōsatoriō is Intrinsic, and that which is Intrinsic can be experienced but never captured in language, logic, or mathematics.

The ultimate step or stage of Zen is then revealed, not as the ōsatoriō usually described as Zen’s ultimate in most Western presentations, but as ōMuō mystery. We stand in the midst of silence, without any rational constructs, before ōMuō as words or logic or math would only serve to inject limitations and inadequate approximations. Using the theologian Gabriel Vahanian’s idea, authentic engagement with ōMuō requires silence in what he calls a ōwaiting without idols,ö the most prominent ōidolsö being our rational constructs of explanation.

Within the Zen conversation, we at least are able to step a bit outside our own cultural predispositions, and see that may be very plausible alternatives to rational explanations. In fact, we may even find that engagements with mysteries and a silence without explanations is a better way to participate in lived existence than to watch all that appears through the lens of ōsense.ö In doing so, we may be led to see further dimensions of our world, others, and our own selves. The whole matter of potential may be stretched to a whole next dimension. We may actually begin to see ōmysteryö as a legitimate kind of engagement with reality that has parity with engagements of *proof* and *Truth*. ōMysteryö might, in fact, be a higher form of the *proof* and *Truth* of the realities that matter most.

For the time being, caught up in ōas yet,ö I want to conclude by thinking about a now quiet old physician from South Georgia. Ferol Sams wrote a series of historical fictions that were mostly a memoir of his life and the experiences he had had along life’s way. I love ōSambo’sö books for the authenticity of voice and image, sound and substance, that resonate through every page, and take me back to memories from my own childhood. His first book, *Run with the Horsemen*,⁸ begins with a sentence that I have found to be one of the most incredible first statements in all of the literature I have read. Sams writes: ōFirst there was the land.ö To him, that is how it all begins, and that’s a good enough explanation for me for beginnings and first things. That’s enough *Truth* and *proof*. The sentence from Sams has as much contemplative and existential impact as Heidegger’s question. After Sams, we have to sayö not so much ōSo, what?ö because the phrase sounds dismissive, and the ōlandö from which we are first nurtured cannot be treated lightlyö but ōNow, what?ö with a purposeful and intentional leaning toward the future. ōNow, what?ö for the time beingö re-interprets and re-defines “*Why?*”

⁸ Ferol Sams, *Run with the Horsemen*. New York: Penguin, 1982.

A PROPOSED FOURTH ATMOSPHERIC DIMENSION OF VALUE

Douglas C. Lawrence

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Abstract

The purpose of this paper is to introduce, explore, and discuss "Atmospheric Value" using the basic tenets of Formal Axiology. As a proposed addition to Axiology, the rationale and importance for adding this Dimension are presented, and comment is invited. A system of notation, along with basic Atmospheric Equations, is put forth. Key insights about what we value in the Atmospheric Realm and how we make those valuations are developed and discussed. All forms of atmospheres, ranging in size from 2 microns up to the size of the Universe, are considered within the scope of this discussion. Implications of new advances in Quantum Entanglement, a fundamental aspect of our atmosphere, are discussed as well.

Getting Started

Atmospheres exist throughout. No matter where you are, you are in one.

There is your home atmosphere, your work atmosphere, the restaurant atmosphere, not to mention the atmosphere at large. There are good atmospheres, and there are bad ones. They influence us, and those we know each and every day. And likewise, we *them*.

We spend countless amounts of time, effort, and energy in and on our "primary atmospheres" - the places we call home, not to mention all the "specialty atmospheres" of the modern day world, such as schools, airports, factories, and hospitals and universities. For the atmosphere at large, we spend millions, if not billions doing cleanup when there is an "atmospheric accident" (natural, or of our own making.) And countless regulations mount as we struggle to protect the atmosphere and all the critical elements contained within.

To the point, Atmospheres are inextricably linked to and are integral to our lives. Stories of atmospheric harmony and atmospheric strife are synonymous with the story of mankind, and indeed, the story of life itself. This paper speaks to the need to define, gain insight into, and promote understanding of the Atmospheric Dimension of Value. What and how we value in this realm is a key to understanding who we are, both personally and as a whole. Are there specialized

tools and concepts that can help us sort through this maze of values? Yes! That is the express purpose the Atmospheric Dimension of Axiology and what follows.

Axiology as a Value Science Tool

The term Axiology is likely new to most people and therefore deserves some introductory description. Only the basic elements of the first three dimensions of Axiology are introduced here, as our primary focus is on the unveiling of 4th, Atmospheric Dimension (A). For a deeper understanding of the field, you may refer to Rem B. Edwardsø book ó *The Essentials of Formal Axiology*, © 2010, University Press of America.

By way of introduction, the purpose of Axiology is to gain a better understanding of what we value (value objects) and how we value (evaluations). In terms of the structure of Philosophy, it underlies the major branches of Ethics and Aesthetics, which directly address key aspects of our value systems.

On a more direct level, because we find ourselves in a sea of value decisions at each and every moment, the precepts of Axiology are highly relevant to our everyday lives. At the same time, it is also easy to see the import to our more timeless and mindful selves. It can penetrate to the very depths of our being.

Modern day Axiology traces its roots back to the ancient Greeks, Plato in particular, with respect to the *Form of the Good*. In more recent times, Robert S. Hartman (1910-1973), made major contributions to the field, which include the following:

- 1) Definition of ögoodö
- 2) Adding in a third dimension to Axiology (Systemic)
- 3) Making Axiology more scientific in its approach
- 4) Applying Axiological Theory to create such tools as the Hartman Value Profile.

The relevance of these contributions can be briefly expounded upon as follows:

1) Definition of Good. Hartman is credited with the first Axiom of Axiology, which defines ögood.ö Something is good if it fulfills its intension. Good is a concept fulfillment. While that may sound simple, up to the time of Hartmanøs discernment, Philosophers struggled with an effective way to express what ögoodö is. From there, Hartman asks how many ögood making propertiesö something has. This backs into a relative measure of goodness, whereby the number of good making properties something has is a measure of its value. The next step is to see that there are major discontinuities in the number and kind of ögood making propertiesö (and hence Value) amongst the three realms of value ó Intrinsic, Extrinsic, and Systemic, with Intrinsic being of the highest value.

2) Hartman identified and defined the *Systemic Dimension* of Axiology. Prior to Hartmanøs work, only the Intrinsic Dimension (people) and the Extrinsic Dimension (useful things) were recognized. To these, Hartman added the Systemic Dimension, which refers to thoughts, ideas, beliefs, systems, formalities, etc. Once Hartmanøs contributions were in place, the three dimensions of Axiology stood at Intrinsic, Extrinsic, and Systemic, which are typically abbreviated as I, E, S.

3) Hartman wanted to expand the Philosophy of Axiology into the Science of Axiology, whereby scientific techniques, mathematics, and logic would prevail. This would help make Axiology more scientific and, along with it, more useful. Part of his effort was to establish this Science by imparting the math of infinitudes to the realms of value. While the exact nature of the math may not sit well with some, most would agree that Hartman's desire to be scientific took him to fertile ground with regard to developing "value logic."

4) Hartman was able, prior to his untimely death, to convert certain parts of his theory into practice. Among his achievements was the introduction of the Hartman Value Profile. This is a recognized tool for in use for testing people's "Value System Profile" relative to their employment objectives. It helps predict performance regarding our most important asset – Human Resources, our people.

How does Axiology Work?

Formal Axiology, as the Science of Axiology, poses a structure to analyze what we value and how we value it. Its basic objectives are to dissect the analysis of value, classify value concepts, and calculate value, by categorizing it into realms or Dimensions, and then applying mathematics to them. Why is this so important? It is as important to have a firm grasp of each of these "dimensional" building blocks as is pertinent to have building blocks in the approach to any field of knowledge. Exploring the key aspects of Value Science requires a working knowledge of its basic elements. Axiology allows you to take value apart, examine its constituent components using accepted principles, and then put it all back together with a much improved understanding.

Evaluations

Axiology fully recognizes that valuations are a mix of both affective and rational elements. These two aspects of evaluation are an important part of who we are as human beings. In a way, they form a system of checks and balances. If a person uses just the affective mode, they can get in trouble for being "too emotional." If they use just the rational mode, that can lead to great difficulties in being "overly analytic." It appears that a more balanced, intuitive approach presents a way of success for many people.

Adding a Fourth Dimension to Axiology

Adding a fourth dimension to Axiology is an important step in extending our set of basic value building blocks. This should not be done without some formal, proper consideration. I submit that the following attributes are criteria that must, and have, been met:

- 1) relative importance
- 2) rational position
- 3) affective position
- 4) richness of properties
- 5) impact on the uses and benefits of Axiology and its associated fields
- 6) In short – a lot of "goodness" should be added that is significant.

Most important of all, expert Axiologists agree, is that once correctly posited, this realm of Axiology becomes intuitively obvious. It is simply pointing out what has always been.

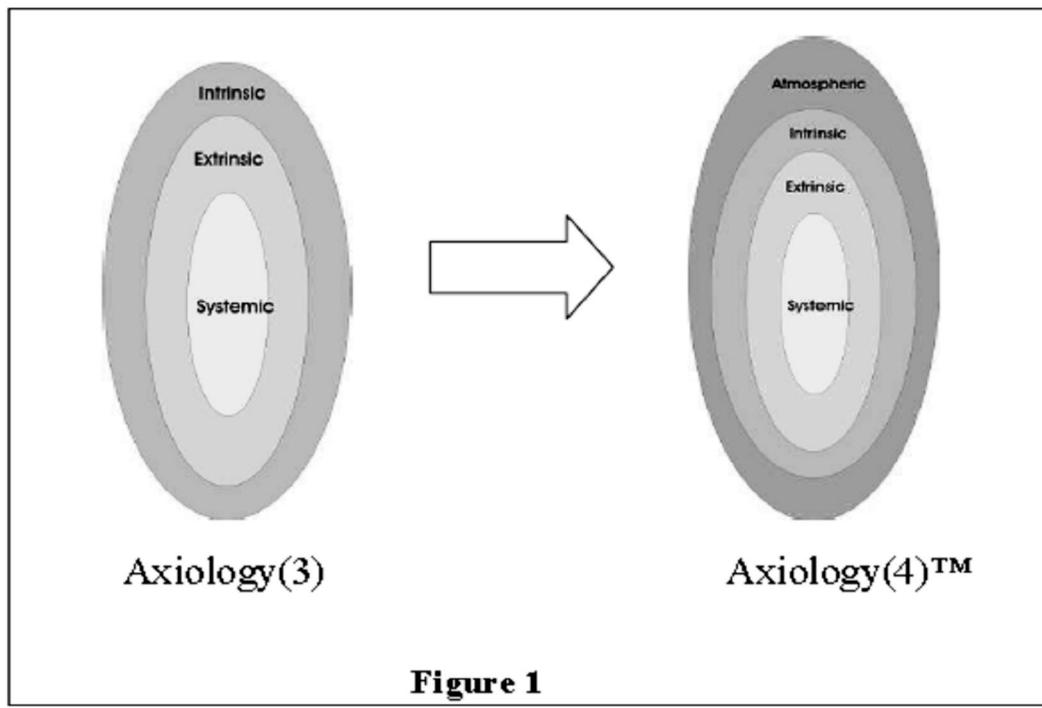
Atmospheric Hierarchy

In *The Structure of Value*, Robert S. Hartman introduced the notion of a hierarchy of values as follows:

Systemic value, extrinsic value and intrinsic value are the three value dimensions. They constitute a hierarchy of richness, intrinsic being richer in qualities than extrinsic, extrinsic being richer in qualities than systemic values. “Richer in qualities” is the definition of “better,” “poorer in qualities” is the definition of “worse” (114).

So where does the Atmospheric Dimension (A) fit to the existing scheme?

By definition, the Atmosphere Dimension contains all of the other dimensions. It possesses a richness which is at least equal to that which it contains. But it goes well beyond this, by another order of infinitude, and another order of uniqueness. *It embraces all the mutual influences of all possible arrangements and interactions of all the others, including itself.*



A Simple Illustration

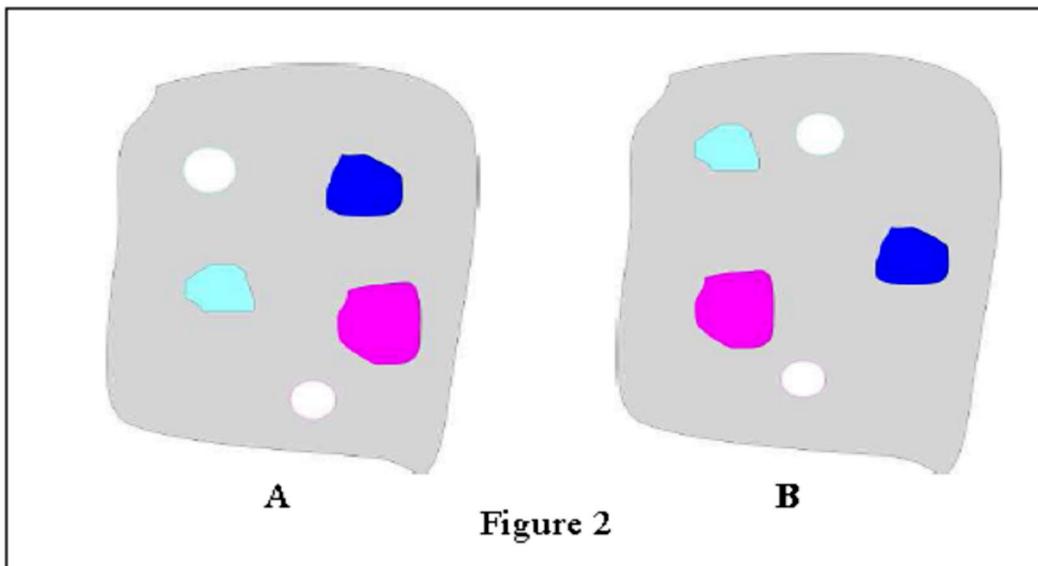


Figure 2 above illustrates a given atmosphere with five elements and two arrangements, A and B. You can assign values to these objects and name them as you choose. Then consider the following:

For Figure 2- A, reflect on all of the influences of the objects, one by one, on each other, taken one at a time. After that reposition as suggested in 2-B; repeat the entire exercise. Then contemplate all the other possible arrangements ó which are infinite in number.

This simple exercise points toward the general richness and uniqueness of properties of the Atmosphere Dimension that go well beyond any other dimension. *Good making properties abound.* Along with it are connotations that, given the infinite possible arrangements and interactions, advance beyond limits.

While many important atmospheres come in boxes, do not get boxed in when it comes the Atmospheric Dimension. Many key atmospheres can be readily identified by their ófour walls.ó However, you will find that the open atmosphere and the atmosphere at large allow us to expand our thinking into the infinite.

Scrutinizing a 4th Dimension of Axiology

For those who are highly familiar with Axiology, it is important to place the 4th Dimension under scrutiny, both historically and otherwise. We begin by analyzing certain key aspects of Hartmanian Axiology.

Does Formal Axiology Specify or Require that there are Only Three Dimensions of Value?

In considering a 4th Dimension, here is one of the first questions that surfaces. Are there inherently just three dimensions?

Rem Edwardsø book, *The Essentials of Formal Axiology*, points to the fact that the philosophical door is open to additional dimensions:

About these three kinds of dimensions or goodness, some important philosophical questions must be asked, such as: How do we know that there are only three? i
First, how do we know that there are only three kinds or dimensions of positive value? We donøt, but Hartman made a great start. (43-44)

As clearly stated here, the existing tenants of Formal Axiology do not automatically preclude the possibility of adding additional dimensions. To their credit, Philosophers constantly examine the roots of belief systems, vigilant in the pursuit of new truths and helpful ways of examining things.

Another factor to consider when contemplating the addition of any dimension is the Occamøs Razor Rule. *The simplest solution is typically the best solution*. A key question, if we start adding in dimensions ó where will it all end? Canøt we just combine this idea into the context of existing value theory?

If an idea fits within existing theory, that is great. If it does not ó then that is a different story. As we research and learn more, we have an intellectual responsibility to consider these learnings as we develop our knowledge base. One has to apply caution when applying the øRazor rule.ø The main criterion for any theory is not simplicity, but whether it matches evidence and serves its subject well. An adequate theory must be both simple and comprehensive. If competing theories are measured by this criterion, experience has shown that the simplest is typically the best

as long as nothing important is omitted. We do not say that Quantum Physics is wrong because it is not as simple as Newtonøs Laws. It takes account of realities that Newton never knew. I submit that most would agree that Occamøs Razor does not automatically preclude a Fourth Dimension.

Where Did the Existing Dimensions Come From?

Rem Edwards points out that Hartman adopted the Extrinsic (E) and Intrinsic (I) dimensions of value from centuries of prior philosophical work. To that he added the Systemic (S) dimension.

Hartman just adopted these two kinds of goodness, intrinsic and extrinsic, from the philosophical tradition. To these he creatively added the third, systemic goodness (conceptual values).

Going back in History, there is no proof for the intrinsic and extrinsic dimensions. They exist, by and large, because they work, and they are useful. This is clearly stated by Rem Edwards:

The three dimensions of value are derived from philosophical reflections on how to group human value into identifiable kinds. These are philosophical additions to the Axiom, the Form of the Good, not simple deductions from it.

Along the same lines, Edwards makes another point of equal importance:

The three basic kinds of value are logically independent philosophical features of Hartmanian formal Axiology ...

Characterizing a dimension as an *independent philosophical feature* is critical to understanding what a dimension is or is not. This leads us to the crux of the matter in what follows.

Is the Atmospheric Dimension a New Kind of Value?

The real issue to address is whether the Atmospheric Dimension is a separate and distinct type of value. Is it distinct from the other dimensions?

What are some examples of Atmospheric Value Objects?

- Magnetic fields
- Electric Fields
- Spiritual Fields
- Gravitational Fields (Newtonian Sense)

All of these fields of influence are well known. By thinking in concrete terms associated with fields and their characteristics, you can quickly gain a variety of insights into the Atmospheric Realm. One of the most important concepts is that unless there is something for the field to work on, its value in this realm cannot be manifested.

These *field aspects* are important consideration in *value structures*. I submit that the Atmospheric Dimension is an important consideration for any value object and that it differs in kind and is independent of the other kinds of value.

A Real Pickle

A very innocuous example would be the value structure of a simple *pickle*. As all pickle lovers know, pickles have many good-making properties. However, elements of its Atmospheric Value, and the way this value works, are distinctly different from other forms of value. Typically, when a pickle is held in front of a person, their mouth begins to water. This induced effect of an extrinsic value object on an intrinsic being is separate and distinct from other types of value associated with the pickle. This simple example brings further interest - an extrinsic object influencing an intrinsic object - is an example of inter-realm influence.

A Highly Charged Value Object

We can further our understanding with a simple illustration using a highly charged extrinsic value object - a *gun or pistol*.

In a Hartmanian sense, we can value the gun in all three dimensions. For instance we can value it systemically for the myriad of concepts and forms which it embodies. We could value it extrinsically, for its extrinsic use-value properties such as caliber, accuracy, range, etc. Or we could value it intrinsically for some unique quality, such as the case with an old musket handed down as a family heirloom.

But in the Atmospheric Realm, we would value the gun for the influence that it has on other value objects. This could be a positive influence as in the case of supporting justice, or a negative influence, as in the case of committing a crime. Just seeing the gun has an effect and influence on people. This is value through induction.

To see the independent nature of this value type, imagine that you enter a room and there is a gun on the table. Such a highly charged object is sure to evoke a reaction. Now enter the same room, but with the same gun *covered* or out of sight. Manifesting this kind of value (or disvalue)

in this realm is independent from I, E, and S kinds of value. In fact, in this example, this kind of value can be switched on and off simply by covering (hiding) or uncovering (un-hiding) the gun.

To further illustrate the nature of the atmospheric value of a gun, I refer you to the infamous case in history where the atmospheric dimension of value of a gun was the **dominant influence** in a value situation. So dramatic, in fact, that it made all the papers. I refer here to the 1934 jailbreak from an escape-proof Indiana Prison by John Dillinger.

As is well known, Dillinger escaped from the highly secure prison through the use of a fake gun. To the right is a picture of what is thought to be the actual gun that was used by Dillinger. Seen here, it is hard to believe that this crude carving could have worked. The truth of the matter is - the reason this worked was really a value combination of both the fake gun and the particular man who held it. Together, the atmospheric influence was overpowering.



Across the Board

As you contemplate this dimension of Value, it is important that you see that our value understanding is improved by the Atmospheric Realm. This dimension of value is an important aspect of all value objects (I, E, and S), and to see it as such, is very valuable in understanding and imparting logic to Value Science. At the same time, this dimension of value has an intangible aspect which can make it difficult to grasp. For that reason, anyone familiar with the current constructs of Axiology may need a little time to get used to this idea. The best way to arrive at a good understanding is to taste it. If you understand and apply it to value situations - you should rapidly conclude that it is both real and that it is distinct.

How Does It Feel?

The preceding discussions are useful for seeing a logical and rational view of how the Atmospheric Dimension delineates a distinct type of value that has a high order of richness, uniqueness, and good making properties. But where does it stand in terms of our emotional or affective senses? Our homes provide a ready example that anyone can identify with. As is the case with many value objects, when things are going smoothly, we take them for granted. But when they are threatened or destroyed, all is changed.

How many times have you seen, either personally or in the news, the enormous grief suffered by unfortunate people whose homes have been destroyed by fire, storms, or some other disaster? The losses are devastating. Or worse, consider a really serious Atmospheric Loss. Ask yourself the following: As I wake up tomorrow, what would it be like if a key atmosphere element were missing? Maybe the sun, unexpectedly, is gone. Most life, as you know, would be doomed. Evaluate how this doomsday scenario stacks up, emotionally speaking, compared to other losses. In terms of Intrinsic loss - all is over. This would be the death of all life forms, including us humans. This is a vivid reminder that all of our lives rest upon our atmospheric fate.

To further emphasize the importance of the Atmosphere Dimension, ask: öWhat would happen if all of life was, in fact, destroyed? What would be the only way back?ö *An atmosphere that is capable of creating and sustaining life.*

However, we need not be that dramatic to see practical everyday applications of the Atmospheric Dimension. For instance, take a simple object such as a painting. With an Atmospheric Dimension, the painting can now be assigned its rightful and logical position ö which is atmospheric in nature. We hang it on the wall for the way it will influence us and others. The same goes for a vase of flowers. Not that we can't and don't value these objects in other realms but that intuitively, they belong, first and foremost, in an Atmospheric Dimension.

Squaring the 4th Dimension with I, E, and S Valuation Styles

In the basic tenants of Axiology, an important distinction is made between the class of value objects, I , E, or S, versus the *affective styles* of evaluations we make. Axiology holds to the fact that there are distinct övaluation stylesö which naturally spring from each of the realms. In his book, *John Wesley's Values – And Ours* (19), Rem B. Edwards gives a nice, correlated summary of the affective styles of evaluation in each of the three dimensions. Excerpts are as follows (my bold):

*Evaluating **intrinsically** means valuing with intense feelings – with passionate, affections like intense love, compassion, consolation ... People (intrinsic values, conscious individuals, final ends) are the most natural and appropriate objects of intrinsic evaluation.*

*Evaluating **extrinsically** involves valuing pragmatically in terms of, or for the sake of, normal everyday practical desires, feelings, and interests. Physical or sensory things, bodies, processes, and actions in our ordinary spacetime world (extrinsic values) are the most natural and appropriate objects of extrinsic evaluation ...*

*Evaluating **systemically** means relating to good things with disinterested (but not uninterested) objectivity. Truth, knowledge, ideas, thoughts, beliefs. Laws, rules, principles, rituals, mathematics, logic and other formalities are the most natural and appropriate objects of systemic evaluation. ...*

In keeping with this line of thinking, the 4th Dimension Valuation style is put forth as follows:

*Evaluating **atmospherically** means valuing in a mindful, holistic, prayerful, and contemplative way. Being circumspect, intuitive, and discerning in our valuations is the key.*

To get some personal understanding of your style, think about some big changes of öatmospheric proportionsö that you have made in the recent or not so recent past. Compare the valuation styles you used there to the practical, öconsumer reportö value style you used in the purchase of a new car. Note also the following: When you think about the new car, your mind will, quite naturally, to go to the *atmospheric effects* the new car purchase will have. What is most important to you? *You have just had a "hierarchy experience" as well.*

Positive Impact

The addition of the 4th Dimension to Axiology can be seen to have a number of important and useful ties into the Philosophical World. Several of these are touched on in next several sections.

God on our Side

The Bible can provide supporting evidence regarding the Atmospheric Dimension and its Hierarchy. Although this may not resonate with some, most would agree that it never hurts to have *God on Your Side*. Specifically, I am referring to Genesis. As you will recall, God creates the Atmosphere for men and women and calls it GOOD. Then he creates humankind. This clearly points to the fact that God has things straight. Atmospheric Dimension first, Intrinsic Dimension second!

Perhaps, even more important, is the realization that in the New Testament, Jesus spoke in ñatmospheric terms.ó An atmosphere of LOVE, both within and without, is the number one prescription for Goodness ó the number one *Transformational Atmosphere*. Add to that the atmospheric specifications for Heaven, Hell, The Garden of Eden and we can begin to see that most of the tenets and teachings of religion are primarily in the atmospheric realm ó as it should be. To this way of thinking, *many key aspects of Religious Beliefs could be classified as the Systemic Essence of the Atmospheric Dimension*.

Ethics and Aesthetics

Furthermore, the entire branches of Philosophy Aesthetics, and Ethics which are subtended by Axiology, now have a ñvalue homeó. In light of the Atmospheric Dimension, Ethics could be said to represents our ñinternal atmosphere,ó while Aesthetics deals directly with external atmospheric effects. Hopefully, for all, a heightened awareness of the importance of the Atmospheric Dimension might, in turn, spur on a renewed interest and continued examination of these important arenas.

East Meets West

Beyond question, the Atmospheric Dimension builds a very important bridge between Eastern and Western Philosophy. For instance, as illustrated below, the ancient Chinese concepts of Geomancy and Feng Shui are all about ñatmospherics.ó Steven Postøs, *The Modern Book of Feng Shui* 6, opens the History of Geomancy as follows:

In nature, cocoons, webs, nets, dens, and shells attest to the variety and skillfulness of solutions to housing. In these dwellings we can see that an understanding of geomancy is inherent to the survival of a species. The methods employed in a dwellingøs construction offer protection from the elements and from predators. (Geomancy is both part of our animal heritage and the result of continuing evolutionary improvement in human society.) (4)

Further, during his introduction to Feng Shui, he states as follows:

Feng Shui was the mother of the natural sciences in China, the original ñenvironmental impact statement.ó By knowing the influence of place, weather, cosmos, and all the conditions of our

total environment, we can help shape our destiny. For the last 5,000 years, Feng Shui has been used as environmental science, magic, worship, and therapy, to bring security, wealth, harmony and happiness to homes, communities, workplaces, cities, and countries. (7)

Depending on your background, you may have a deep appreciation for Feng Shui, or just consider it something that we use to decorate rooms and design buildings. Either way, the Atmospheric Dimension ties directly to the precepts of Feng Shui, and to other key aspects of Chinese Philosophy. As understanding of the Atmospheric Realm proliferates, it can build an important bridge between these two worlds. It should be viewed as a conduit ó one that brings both systems of thought together to share important and complementary views.

The Form of the Good

In the event that you have not reviewed your Greek Philosophy recently, it is important to recall that some of the Greeks had an important concept commonly referred to as the *Form of the Good*. As many are aware, a great many of the aspects of our culture that we admire most can be traced back to such Great Thinkers.

By way of review, Plato was the originator of the FORM of the GOOD. He argued that each and every thing had a öspecificationö of good ó an ideal form. If we look at the forms, we will notice that they are expressed in the atmospheric terms.

For example, Beauty, Justice, Love, etc., are not, when implemented, in any other realm but the Atmospheric Realm. This leads to a big problem if you try to work without the Atmospheric Realm. If you try to explain and understand an atmospheric variable as a mere combination of I, E, and S you will inevitably get into trouble.

Let's take Justice as an example. Certainly, one could argue that Justice is a concept, and therefore has a Systemic aspect. Second, one could argue that Justice has Extrinsic elements: (handcuffs, guns, and other extrinsic things). Or that justice is a collection of laws (more Systemic). Or it involves people, judges, juries, policemen, lawyers (Intrinsic elements). But using these combined dimensions will fall short ó despite our best efforts, to adequately describe the value object of interest. We will get all tangled up! We need an evaluation of the whole.

But let it be said that Justice is an Atmospheric Value Object. The purpose of the Value Object, in this case, is to influence Intrinsic Value Objects – namely people. It is an atmosphere of Justice that they ultimately want, and there is really no other way to say it. But when it comes to creating Justice, it will depend on the specific atmospheric elements present, how they are arranged, and other complexities of the situation. But rest assured, although people may be unable to call out the elements and their arrangement, they will know when it is there, and when it is not.

Furthermore, it is important to realize that there is more than one way to arrange and specify the elements to construct Justice. So is it equally important not to overemphasize any one element. And finally, it is important to realize *Justice is not just a systemic concept. It has an atmospheric reality. Converting systemic ideas to atmospheric realities is powerful. One could infer that Plato understood this, and that he was, in fact, an “atmospheric genius.”*

We will see more of the Form of the Good as things progress. Let it be said, it is a very important concept for life in general.

Hartman Value Profiles

As a side note, the 4th Dimension should play a key role in Hartman Value Profiling. For instance, leadership can be viewed, first and foremost, as an atmospheric endeavor. Frequently, the most prized qualities of leaders are the ability to read atmospheres, create, respond and help control them. Integrating this into Leadership and Value Profiling can only help further strengthen this method of analysis.

Atmospheric Notation

In truth, the Atmospheres that we encounter consisted of combined influences of pertinent value objects. The mutual influence of each value element in a value combination on all the others creates overall atmospheric value. This leads to three ways to describe or refer to an atmosphere:

- 1) {A,B,C,D}, whereby we list the elements and arrangement, where the implied or deduced effects exist, as they may.
- 2) We enumerate some or all of the mutual effects, that we may consider important or dominant, such as love, beauty, hate, bright, happy, sad, healthy, warm, etc.
- 3) We list by name ó an atmosphere, with which we naturally associate certain effects - {Heaven}

It is valuable to support atmospheric discussions with some rudimentary notation which has been developed to support this Realm of Value. Atmospheres, especially nested ones, can get confusing as we advance the discussion of the Atmospheric Dimension.

The following Notational Conventions serve as a starting point for the Notational System. We will continue to add notational concepts as our exploration of this realm progresses.

Convention 1:

To emphasize boundaries and containment, the traditional way of referring to I, E, & S has been modified to be written as |S|, ||E||, |||I||| respectively. In addition, there is a second way to express the Intrinsic, such that |||I||| = [I], where square brackets are used. This symbol [square brackets] has a special name ó A *Cradle*. You will see more on this later.

Convention 2:

General atmospheres are enclosed in curly brackets like so:
 {atmosphere}

Convention 3:

Elements that make up an atmosphere are listed, being comma separated. {A, B, C, D, E} would be written to valuate or express the value of the above picture. The elements can be rearranged to suggest another order. {D, A, C, B, E} would suggest a different atmospheric arrangement.

Convention 4:

Influence Symbol. The ö>ö and ö<ö are employed to show the direction and influence on a given value object. The colon ö:ö is used for when we want to refer to both at once, or Mutual influence. Let's make YOU, value object öAö in the following atmosphere.

{A< B,C,D,E} ó would be read as what influence B,C,D,E are having on **you**.

{A>B,C,D,E} ó would be read as what influence **you** are having on B,C,D,E.

{A: B, C, D, E} ó would be read the mutual influence of A and B, C, D, E

Convention 5:

A group of elements, separated by a ó:ó, constitutes the sum total, conceptually, of taking each and every element, one at a time, and looking at the mutual influences for a given configuration.

Thus, {A,B,C,D,E : A,B,C,D,E} refers to all the mutual influences of A,B,C,D,E on each and every element, taken one at a time for a given configuration.

Armed with some new notation, and some simple equations, let's do some Value Science.

Mister Selfish Defined, the Taker, T

Our simple equation above now helps us define and visualize a taker óT.ó

{T<B,C,D,E} ó asks just one question ó What is in this for me?

The Giver, G, Defined

{G>B,C,D,E} ó ask just what influence he is having on everyone else. If he so to the extent of his own destruction, that's not so good either. *1

Better

{A: B,C,D,E} where A is taking a balance approach ó How are the elements of this atmosphere affecting me, and vice-versa.

Best

{A,B,C,D,E : A,B,C,D,E}, where goodness prevails throughout. One for all and all for one can produce excellent results. That is defined as the **Total Goodness** within an atmosphere. It is the ultimate Form of the Good for an Atmosphere. There is so much goodness in it that it should bring a smile to even Plato's face. Total Goodness is not necessarily easy to achieve, especially as the number of elements in our example atmosphere goes up.

A Simple Exercise for You

As a personal exercise, you may want to write a simple atmospheric equation for yourself.

For instance, pick what you consider to be some dominant influences in your atmosphere. Ask the question, óHow is this influencing me.ó {you < A,B,C,D}.

Then reverse it. Turn it around and ask, how am I influencing the atmosphere? {you >A, B, C, D}. Then you could dig deeper. Are there things in the atmosphere that may be influencing you that you are unaware of, or maybe vice versa? Chances are, you may think of some improvements.

External Influences

It is important to realize that atmospheric effects can, and do, extend well beyond what we consider the bounds of our immediate atmosphere to the containing atmosphere and beyond. This influence goes both ways. It is a two way street, where one of the directions may be more important than the other, or not.

In our system of notation, we utilized our *influence symbols* $>$, $<$, $:$ in the same manner as previously described. External influences are expressed as follows:

$\{\text{atmosphere}\} < \text{External}$
 $\{\text{atmosphere}\} > \text{External}$
 $\{\text{atmosphere}\} : \text{External}$

Some simple examples include:

- 1) $\{\text{earth}\} < \text{moon}$; whereby the moon's gravity affects, say, the tides, amongst others
- 2) $\{\text{USA culture}\} > \text{world culture}$; whereby we evaluate the effects of the USA culture on the world culture.
- 3) $\{\text{USA Culture}\} : \text{world culture}$; where our valuation goes both ways

This concept allows us to raise the bar on goodness:

$\{A,B,C,D:A,B,C,D\}: \text{external}$

which now defines *Universal Goodness*, where the Total Atmospheric Goodness of an atmosphere has been extended to all. There is no larger scope of atmospheric goodness than this.

Free Space

As an adjunct to the above, the most important atmosphere of all could be said to be *free space*. It is the foundation in which, and on which, all atmospheres rest. *It permeates and is a part of all atmospheres.*

Whatever Free Space is, it is **not** nothingness. It is probably safe to say that we have a better understanding of the matter that resides in free space than of Free Space itself. Mysteries abound.

Despite this lack, humankind is able to press on. Free Space has many properties that we work with every day, such as permittivity (electrical properties) and permeability (magnetic properties). Most important, in ever more exciting ways, it has been discovered to support many here to unknown actions at a distance. I refer to the mutual particle and material influences which come under the heading of quantum coupling and *quantum entanglement*. Exactly how these mutual interactions work is beyond us. But these effects are one of the hottest areas of research around. This phenomenon was famously referred to as "spooky action at a distance" by Einstein. This is important stuff.

Last, but not least for the Atmospheric realm of Axiology, the notion of Free Space is not just a bunch of physics. It also gives home to the spiritual realm. Throughout the history of

Religion, a spiritual realm that permeates throughout the Universe has been suggested and put forth. This clearly moves God and öinterconnectednessö into the Atmospheric Dimension.

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THE FIFTH DIMENSION: INTRINSIC VALUE ENHANCERS

Rem B. Edwards

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Abstract

This article argues for recognizing another independent kind or dimension of value that does not fall into Hartman's three systemic, extrinsic, and intrinsic dimensions. They are called "Intrinsic Value Enhancers." They exist only within unique conscious individuals (intrinsic value objects), but they are not themselves conscious individuals. Neither are they mere concepts or beliefs (systemic values) or merely mindless but useful sensory objects and processes (extrinsic values). They are such things as pleasures or happiness, creativity, free choice, will power, self-initiative, spontaneity, concentration, attention power, positive feelings and emotions of every description such as desires, appetites, moods, attitudes, affections, purposes, interests, approvals, moods, enjoyments, attitudes, etc., conscience, our inner moral compass that tells us the difference between right and wrong, love, empathy, compassion, etc. All such things enrich our lives and are good for us, but they have no value to, for, or in themselves. Some of these are ways of valuing or valuation, but they are also value-objects of a distinctive kind.

The Fifth Dimension

In this issue of our *Journal of Formal Axiology*, Douglas Lawrence opens the door to discovering new dimensions of goodness not covered by the three that Robert S. Hartman emphasized—systemic, extrinsic, and intrinsic. He calls his fourth dimension "atmosphere," and he invites further discussion of this potential new dimension of value. In this essay, I would like to explore a possible fifth dimension of goodness. I will call it "Intrinsic Value Enhancers." The best if not the only criterion for identifying new dimensions of goodness is this: *Some conspicuous class of values just does not fit the three (or four) that have already been identified.* Of course, this needs to be demonstrated. For simplicity, I will concentrate only on Hartman's three dimensions, and I will argue that intrinsic value enhancers do not fall into any of the categories of systemic, extrinsic, and intrinsic goodness. I doubt that this discovery will make much practical difference to consultants who make such heavy use of Hartman's three dimensions in testing and counseling, but it might make a difference in the way in which they interpret and present their results.

The new class of “Intrinsic Value Enhancers” that I will explore is roughly identical with Hartman’s category of “good for” values. Hartman placed “good for” values within the realm of “value relations” (SV 107). Here is how he defined and illustrated this category.

x is good for y means...that *x* and *y* are in different classes but have overlapping intensions such that the intension of *x* is part of that of *y*. *Hay is good for horses* means that “hay” and “horse” are in different classes but that the intension of “hay” is part of that of “horse”; the digestive tract of horses has an affinity for something that is hay. *x is bad for y* means that *x* is contrary to some part of the intension of *y*. *Arsenic is not good for horses* means that arsenic is contrary to something which is good for horses. (Hartman 1967, 163)

From what Hartman said about “good for,” it is clear that he applied this important value concept only within the category of extrinsic goodness. For one thing, all of his examples here and later pertain to extrinsic values, and in particular to what is good for horses—e.g., also tails and feet (203-204). For another thing, his conceptualization of “good for” employs only the notion of “classes,” not “individuals.” Classes have more than one member; individuals are “one of a kind.” Thus, Hartman did not explore whether and how one individual might be “good for” another, or how some general class of values having more than one member might be “good for” one or more individuals. Perhaps he thought that was covered by his concept of the valuation of one dimension by another. This is partly true, partly not.

My first step in identifying a fifth dimension of goodness will be to expand Hartman’s notion of “good for” beyond where he left it, that is, beyond the category of extrinsic goodness, so that it can apply to all three dimensions of goodness. Ideas might be good for other ideas. Yes, things might be good for other things. And values in all dimensions can be good for unique or individual conscious subjects of experience, thought, feeling, choice, action, and valuation—e.g., people and animals. So here is how I think we should expand Hartman’s understanding of “good for.” Keep in mind that the “x” in what follows can be either conceptual or empirical class members, or individuals.

X is good for y if the presence of x to or in y is beneficial to y, if x enhances overall goodness for y. X is bad for y if the presence of x to or in y is harmful to y, if x diminishes overall goodness for y.

Now on the surface, it appears that we are talking here about simple dimensional value combinations, and that is partly true, but there is more to it than that. To illustrate, I^S means that some thought, belief, or truth is good for some individual person, e.g., Self-knowledge is good for Rem B. Edwards. I^E means that some perceptible object or action is good for some individual, e.g., Exercise is good for Rem B. Edwards. I^I means that some unique individual is good for another unique individual, e.g., Louise Edwards (my wife) is good for Rem B. Edwards.

I certainly do not deny that positive value combinations enhance overall goodness, and that this is one legitimate sense of “good for.” What I now have in mind, however, is *not the combination of an instance of one of the three dimensions of value with another*, but something else altogether. Relational value combinations are involved in all “good for” situations, but the “intrinsic value enhancers” that I wish to consider *do not belong to any one of the three familiar value dimensions*. If not, then we cannot understand them as making combinations of any two or

more of these three dimensions. If so, to make a place for them, an additional fourth or fifth dimension of value is required. To make a case for this, I will next give a general definition of öintrinsic value enhancersö and ödiminishers.ö

Intrinsic value enhancers (1) exist only within the consciousness, awareness, or “souls” of unique individuals and (2) their presence within the souls of unique individuals is beneficial to those unique individuals.

Intrinsic value diminishers (1) exist only within the consciousness, awareness, or “souls” of unique individuals and (2) their presence within the souls of unique individuals is harmful to those unique individuals.

Examples will now illustrate what I have in mind by öintrinsic value enhancers.ö All of the following are ögood forö or beneficial to us as unique or individual conscious subjects of experience, thought, feeling, choice, action, and valuation. All of them enhance our overall well-being. We have separate names for each and all of them, which is proof enough that we value them for what they are. All of them enrich our souls, all of them exist only within our souls or conscious awareness, but none of them fit into Hartmanøs three kinds of goodness.

ÉPleasures or happiness defined as sustained pleasure and little or no pain over a prolonged period of time

ÉAesthetic experience, appreciation, enjoyment, and creativity

ÉAll constructive creativity, free choice, will power, self-initiative, spontaneity

ÉConcentration, attention power

É Positive feelings and emotions of every description: desires, appetites, moods, attitudes, affections, purposes, interests, approvals, moods, enjoyments, attitudes, etc.

ÉConscience, our inner moral compass that tells us the difference between right and wrong

ÉConsciousness itself, and self-consciousness

ÉIntegrity, being true to ourselves, being faithful to the best that is in us

ÉMoral virtues like courage, wisdom, temperance, and justice

ÉLove, empathy, compassion

ÉSpirituality, an awareness of the presence of God, and other spiritual virtues

ÉMoral and spiritual development or growth

ÉOur capacities for valuation in every value dimension

ÉInner conditions of external acting

ÉInner conditions of systemic actualization like curiosity, objectivity, and intellectual honesty

ÉWhat else?

I do not want to muddy the waters too much, but systemic goods can also be regarded as intrinsic value enhancers. Truth, knowledge, self-knowledge, beliefs, and concepts, also exist only within conscious individuals and enhance our overall wellbeing. I do not claim that this list of öintrinsic value enhancersö is exhaustive, and I invite you to add to it. Furthermore, instances of öintrinsic value diminishersö correspond with each of the above enhancers, but I will not flesh out that list of disvalues. Think about it yourself.

I do claim: (1) that all of these things are good for us, that their presence within us enriches our lives, that they add significantly to our overall well-being (2) that all of these things exist only

within our souls or within some kind of individuated consciousness or awareness, and (3) that none of these fall within Hartman's three categories of goodness or good value-objects. This third claim will now be explained.

First, none of the above intrinsic value enhancers are intrinsically valuable entities. All such entities are unique or individual conscious subjects of experience, thought, feeling, choice, action, and valuation. Only such unique conscious entities are intrinsic goods, that is, ends in themselves, valuable to, for, and in themselves, valuable for their own sakes. This is one of the most important ways in which Hartman differed from most philosopher through the centuries. Most philosophers have answered the question, "What things are intrinsically good?" in terms of repeatable universals like pleasure, knowledge, conscientiousness, desire or interest fulfillment, etc., not unique individuals. I have defended Hartman's position against this philosophical tradition in considerable detail elsewhere (Edwards 2010, 45-56 ff) and will not repeat those arguments here again. I will say that the main reason why traditional philosophers have been so confused about this is that all of their candidates for "intrinsically good things" exist *only within* us or other unique, conscious, intrinsically valuable beings. They can and do exist only intra-mentally, only within us. They are good for us, but not for themselves. None of them have any consciousness, values, or valuational capacities of their own. None could be valuable in, to, and for itself because they are not selves. For the same reason, they mean nothing to themselves, though they mean a lot to us. They exist only for our sake, but they have no sakes of their own.

Second, none of the above fit into Hartman's category of extrinsic value objects. They are not useful perceptual objects existing first in our common, public, sensory world, then within our experiences of objects and processes in that world. Hartman heavily and repeatedly emphasized that extrinsic goods are functional or useful but mindless perceptual or sensory objects and processes. None of the above intrinsic value enhancers are externally existing perceptual objects. They are mindless, but they exist only within us or other conscious beings, minds, or souls.

Now, it is true that objects in one value dimension can be valued as if they belong to some other dimension. Hartman often indicated that every good thing can be evaluated in every value dimension. For example, we can value people extrinsically for their usefulness, and there is nothing immoral about this as long as we do not value them *merely* for their usefulness (just as Immanuel Kant pointed out). But valuing people for their usefulness does not turn them into mindless extrinsic value objects. Even so, all of our intrinsic value enhancers can be valued for their usefulness in enriching our lives, but that does not turn them into useful soul-less extrinsic or external sensory value objects. It also does not give them souls or sakes of their own or reduce them to mere concepts or formal symbols.

Third, even though systemic values are good for us, none of the items in the above list are systemic value objects. They are not mere concepts, thoughts, beliefs, rules, or abstract formalities. Of course, we have concepts of and thoughts about them, but our thoughts refer to their realities, and their realities are not those of mere concepts. Thoughts and formalities have no unique consciousness, values, and valuational capacities of their own. They are not valuable to themselves or for their own sakes, for they have no sakes, no awareness, no values, and no souls of their own.

We must conclude that none of the above intrinsic value enhancers fall into any one of Hartman's three value dimension. Thus, a fourth or fifth distinct dimension of value is required to accommodate them.

One final question must be considered. Aren't at least some of these intrinsic value enhancers modes or capacities for *intrinsic valuation*, and does that not mean that they are *intrinsic values*? For instance, is not love of x a way of intrinsically evaluating x lovingly, and is not

compassion for x a way of intrinsically evaluating x compassionately? And does this not mean that they fall within the domain of the intrinsic? This last way of formulating the relevant question is where the confusion lies. Any given x can öfall within the intrinsicö in one of two different ways, first as a way of valuing, second as a value object. Only confusion results when we conflate the two. Yes, love and compassion are intrinsic *modes of evaluation*, but that does not turn them into *intrinsic value objects*. That does not convert them into unique or individual conscious subjects of experience, thought, feeling, choice, action and valuation.

In other contexts, we may also confuse valuation with value objects. For instance, art objects like great paintings, sculptures, and musical compositions are often said to be intrinsic values (even by Hartman himself), but this at best is only metaphorical speech. We can and often do value them intrinsically, passionately, lovingly, but that does not convert them metaphysically into unique or individual conscious subjects of experience, thought, feeling, choice, action and valuation. The *Mona Lisa* and Michelangelo's statue of *David* have no souls of their own. They are mindless, soul-less perceptual objects. Experiencing them, loving them, enjoying their spectacular beauty, and valuing them intensely is good for us, good for our souls; but in themselves they are still nothing but mindless physical objects. When we value them intrinsically, we exercise no power that converts them into intrinsically valuable conscious subjects. In themselves, they are nothing but mindless perceptual objects. Never confuse intrinsic valuation with intrinsic goodness itself.

I invite further development of and applications of this new axiological dimension of öintrinsic value enhancers.ö

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INTRODUCING FORMAL AXIOLOGY TO JUNIOR HIGH SCHOOL AND SPECIAL EDUCATION DIRECTORS IN MORELOS, MÉXICO

Gilberto Carrasco Hernández

GILBERTO CARRASCO HERNÁNDEZ is a Military Industrial Engineer and a college teacher. His academic life has been dedicated to research on theoretical Formal Axiology and its application to the field of Human Development. Since 1980 he has worked with colleagues and disciples of Robert S. Hartman like Alfonso Lozano, Mario Cárdenas Trigos, Marcos Gojman, Ricardo Ortiz, Israel Stolar, Leon Pomeroy, Rem B. Edwards, David Mefford, and Vera Mefford.

Gilberto studied Philosophy at UNAM and earned his Masters Degree in Orientation and Human Development at the Iberoamerican University. His doctoral dissertation, titled *Axio-orientation, A Proposal to Facilitate the Enrichment of the System of Values of the Personality*, was in development between 1999 and 2001, and he is now writing the final version.

In 2001, Gilberto published his book, *The Axiological Theory of Human Development*. During the last 13 years, he has continued working to extend formal axiology and his own ideas on human development with teachers to diverse institutions, especially in the Technological University Emiliano Zapata and with Federal Junior High School Directors and Special Education Directors of the State of Morelos, MX. His email address is: gcarrascoh@prodigy.net.mx.

Abstract

At the 2010 RSHI annual meeting, I presented "The Axiological Process for Making Good Students in the University Context" (Carrasco, 2011), in which I showed, among other things, how to disseminate successful and rapidly the foundations of formal axiology applied to human development and quality to a whole generation of freshmen at a university. One of the critical success factors was the training of teachers.

Another challenge was to extend this experience to elementary schools in order to impact more teachers, more children, and younger teens with Hartmanian ideas of Goodness. In this paper, I share our experience in teaching Formal Axiology to Federal Junior High School directors and Special Education directors, teachers, psychologists and social workers in Morelos, México.

1. Background

The results obtained by Mexican students in international assessments such as PISA and Enlace are not competitive globally. According to reports from the OCDE, Mexico lost places increasing competitiveness.

The effects of global warming and social violence that we suffer in Mexico and worldwide are products of a crisis of values. Human beings are treated, not as ends in themselves, but as mere means to other goals such as mass production and atrocious consumerism. This has brought us into the worst ecological and financial crisis in history.

Most professionals in our country are not informed and updated about events in the world because they engage in everyday reading practices without much if any training for understanding social reality or for critically reading texts, speeches, etc. Very few writing exercises exist that involve the foundations of structured thinking.

It is imperative to be aware of these serious situations and propose alternative ways to improve and enhance the development of high quality value systems in teachers who can influence students and help them prepare to compete globally and with quality by starting from a critical and axiological reflection, where persons are the center of attention. Recognizing this, the Ministry of Education of Mexico (SEP) and the National Union of Education Workers developed a strategy to train teachers in Mexico to increase quality through axiology-based education.

In early 2010, on instructions from the General Coordination of Technological Universities, the UTEZ proposed several Diploma courses to be considered in the National Catalogue of Professional Continuing Education and Improvement of Basic Education Teachers in Service 2010-2011. With the collaboration of Dr. Jesus Coria and Miguel Angel Ramirez M.A., I developed the ñDiploma Course in Values, Significant Learning, and Healthy Development of Human Potentialsö using Formal Axiology as a framework, together with the basic postulates of Organizational Human Development. This Diploma Course was accepted by the authorities of the SEP, and it was included in the *Catálogo Nacional, 2010-2011*.

2. Description of the Diploma Course

General Purpose - To provide participants with current psycho-pedagogical and axiological theoretical and practical knowledge in order to enable them to respond better to the demands and requirements of the global world, such as: to increase the efforts of students and develop their teamwork, their ability to learn, and their full human development.

Specific Purpose - Upon completion of the Diploma Course, teachers will have these skills: Acting with proactive attitudes, values of excellence, and in harmony with their environment to develop their personal, social, and organizational potentials. Integrating their life plans and careers by reflecting on values and how to live and work in harmony with the environment. Develop proposals for teamwork in order to promote meaningful learning by specifying its characteristics, goals, communication types, participation roles, and how to evaluate its results.

Mode - Presentations

Duration - 120 hours in total, with 6 modules of 20 hours each.

2.1 Course Structure

Module 1. Values and Healthy Development of Human Potentials

Here we review the Basis of Formal Axiology such as the definition of ñGoodö (cardinal and ordinal), the classes or kinds of good, the hierarchy and language of kinds of goodness, and the axiological classification of the human sciences.

Subsequently, with experiential exercises based on existential-humanistic psychology, we addresses the fundamentals of healthy development of human potentials, the axiological structure of personality, measuring the value systems of personality, motivation, self-realization, the healthy development of personality, and environmental influences on healthy personality development.

This module concludes with the fundamentals of quality and competitiveness. At the end of the module, we ask participants to develop a Life and Career Plan, based on a reflection of values and in harmony with the environment.

Module 2. Significant Teaching and the Meaning of Life

Here we review the basics of Victor Frankl's *Logotherapy*, including the meaning of life at work, in love and suffering, and their application in the teaching context to significant and meaningful learning.

Module 3. Focus and Models Centered on Learning

This module presents the educational paradigms and psychology of education, the characteristics of new educational models, educational approaches, and models focused on learning.

Module 4. The Functions of the Teacher as Facilitator of Learning and the Highest Human Development

Here we present the basics of person-centered approach of Carl Rogers and its applications to education, so that teachers function as facilitators of human development. We review the basic functions of the teacher, identifying the learning styles of students, identifying high-potential students and students who require support for poor performance. Care options are offered, from the counseling process the didactic relationship.

Module 5. Meaningful Learning Exercises: The Fundamentals of Critical Reading and Writing

In this module we review techniques for speed reading comprehension and organization of arguments in writing, applied to understand better the social reality of our Mexican community.

Module 6. Teamwork to Promote the Development of Significant Projects in the Classroom

This module reviews the fundamentals of teamwork: the difference between groups and teams, the axiological structure of teamwork, the basics for the integration of a team such as communication, level of maturity of the group, management and leadership styles, models of collaboration-competition and conflict management, fundamentals of quality circles and high performance teams. It concludes by conducting study circles to foster collaboration to develop significant projects between students and teachers.

Evaluation - Passing the Diploma Course requires a minimum attendance and participation of 80%. Passing the first module requires developing a life plan and career. Passing the rest of the modules requires developing a practical project for each module where they apply their knowledge to develop significant projects in line with the working reality of the audience. They may develop a single application work, whether individual or team, to implement more than one module.

3. Development of the first Diploma Course

In late 2010, Ms. Natividad Diaz de Leon, Deputy Chief Technical-Pedagogical Department of General Junior High Schools of Basic Education Institute of the State of Morelos (IEBEM), expressed interest in this Diploma Course. In my meeting with her, I suggested including 25 Directors of Junior High School of Morelos so that the ideas of the Diploma Course would achieve greater impact. This was done in the UTEZ in 15 sessions of 8 hours each between 17 February, 2011 and 17 June, 2011.

Description of the Participants - This group had a mean age of 52.7 years (1 was 37 years old, 10 were between 40 and 49 years old, 8 were between 50 and 59 years old, 5 were between 59 and 65). 50% were men and 50% women, all with postgraduate studies related to teaching mathematics, the natural sciences, political science, education, psychology, biology, and English.

4. Enrichment Process of the Value System

As the training advanced, I saw a process of growth in the value systems of the teachers. It began in the systemic dimension, with the theoretical knowledge of formal axiology and its applications to human development; the extrinsic dimension followed by developing their life and career plans in a high quality and warmth environment. The intrinsic dimension followed by existentially appropriating the new system of values and experientially discovering the meaning of life.

4.1 Step One: Start in the Systemic Dimension (S). Learn new ideas about “good” and how to apply them to initiate intellectual growth for existential self-development (S).

At the start of the Diploma Course, it was difficult for some teachers to accept new ideas of “good”. Adults with an average age 52.7 years have a very structured system of values and are a little stiff. These people were a little suspicious, but they had great personal enthusiasm, high energy, and great spiritual sensitivity.

In the first session on formal axiology, there was a deep discomfiture, and a teacher was upset when I told them, “We must teach young people a new value system of high quality.” He replied angrily, “And where is the new value system?” I said, “At the end of the day, you will understand the fundamentals of a new value system based on formal axiology.”

To proceed, I applied the HVP and then explained the basics of formal axiology. Next I applied these ideas using experiential exercises in music therapy to illustrate the types of good, intrinsic, extrinsic and systemic. Then I gave several examples applying axiology to the concepts of “good student”, “good teacher”, and “good director”.

With these bases, I explained axiologically the structure of personality, the process of human development, and the meaning of life. For this, I provided a copy of my book *The Axiological Theory of Human Development* (Carrasco, 2009) where they observed the rigorous theoretical exposition of these concepts. When I then proposed to analyze their value systems with the results of HPV, there was intense interest. Everyone looked forward to the second class.

In the second session, I showed the results from their HVPs. There was a profound surprise, indeed, a shock, when I showed the power of formal axiology to explain human behaviors in general and their own in particular. It was very significant for these directors to examine objectively their own value systems. I showed them carefully the results of the *working world axiotypes* elaborated by David and Vera Mefford, as well as the major indexes such as distortions, productivity, positive attitudes, and the three basic dimensions (I, E and S).

4.2 Second Step. Develop the extrinsic dimension, (E). Use a facilitator to elaborate the Life and Career Plans these teachers developed in a quality environment in order to identify actions they could carry out to add value to their existence and make their lives more meaningful.

After reviewing their HVP personal results, I talked about what Yalom calls the “installation of hope” during axio-orientation in order to promote human growth from the infinite possibilities of healthy development of human potentials. This was based on the Axiological Theory of Human Development and emphasized the ideas of existential humanistic psychology, for example, Maslow’s self-realization, the person-centered approach of Carl Rogers, and Viktor Frankl’s logo therapy. I also applied formal axiology to understand better the healthy development of human potentials and the concepts of “self-realization,” “quality,” and “labor competition.”

To give directors the opportunity to observe in reality the practicality of implementing the highest standards of quality in public schools, we toured the installations of the UTEZ’s IT Cluster. There they observed the business incubator of technological base, the center of software development, the advanced networking laboratory, the contact center, and the automation processes laboratory. They saw the realization of the ideas of “good” and “quality” in the IT Cluster. They talked with people who love their work, do it with passion, and are highly competent in their fields of technology, especially software development, networks, and process automation. They met with teachers and students who are committed to realizing their own full development. With this background, I asked the teachers to develop a Life and Career Plan elaborated three axiological dimensions as well as for short, medium, and long term.

4.3 Third Step. Develop the intrinsic dimension (I). Apply the idea of the meaning of life to work, love, and suffering.

Approaching the intrinsic dimension in a rational way began with the writing of the Life and Career Plan. 80% of the directors developed excellent plans in which they reviewed their personal histories and were well aware of their values, which is so important in their teaching. Several teachers commented that they examined their lives with tears in their eyes. They were very aware that their work as teachers is very valuable and deeply meaningful. 20% of teachers developed their plans of life less deeply, but I think this was also very useful to them. Most at the full maturity stage said that they can now enjoy the years they have left with greater happiness.

There was a retest with the HVP. After the second assessment, the average profile of the group showed strong personality development in all participants. Eight teachers showed immediate positive enrichment of their value system. There was a significant movement in the axiotype “empathetic,” which increased from 6 in the first evaluation to 9 in the second. Some teachers were “moved the floor.” The shock from experiential knowledge of the new system of values was very impressive. However, working on their personal development aroused strong interest in all the directors.

I had several sessions of counseling. Based on their personal life plans, and using formal axiology, we first analyzed and then positively resolved many of their “intimate secrets,” vital personal confusions, pains, emotions, and deep feelings.

In the second module, Professor Amalia Rojas Larios masterfully dealt in a deeply empathic and accepting attitude Viktor Frankl’s ideas of logo therapy and the meaning of the life. She used experiential exercises and various videos on Mother Teresa of Calcutta and Frankl himself. After the shock of the first module, this second module provided an opportunity for teachers to re-evaluate their lives and rebuild their value systems. This time there was a better response and greater enthusiasm about participating. Teachers were seeking to learn more about humanistic ideas and formal axiology. After the second module, there were no more dropouts.

The remaining modules, taught by my colleagues Alicia Román, Jessica Castañeda, Mireya Espinoza, Miguel Angel Ramirez, and Jesus Coria offered tools to improve collaboration and teamwork. They also taught interviewing skills based on Carl Rogers' person-centered counseling. All of this created a classroom climate appropriate for promoting meaningful learning based on personal projects.

5. Results of the First Diploma Course

Teachers produced several works that applied the ideas of the Diploma Course in their schools and in their personal lives. Even teachers who were at first reluctant manifested more enthusiasm and optimism about the future of their lives, their families, and their schools. I will mention two cases.

First, during a session of the Diploma Course, Professor Marco Aurelio Mares, without consulting me, invited the theater group of his school to our class. Sixteen young actors presented to the group of teachers the drama "Dropout," which addressed bullying, the moral indifference of some authorities, domestic abuse, and drug addiction. According to Professor Mares, two things about this stood out. First, the theater teacher and author of the drama, Prof. Martin Lopez Quiroga, does not charge for his work but presents it selflessly. He is retired, and this activity gives meaning to his life. The other thing is that two of the teenage actors were initially consuming drugs. As a result of their theatrical work and the guidance and interest of their drama teacher, these two young people no longer use drugs. They are now dedicated to helping other young people through drama and inviting them to quit. We could see here the power of human spirit.

The second case is that of Professor Amador Condado Vique, who successfully completed the Diploma Course. In late September, 2011, he greeted me with a smile of satisfaction that could not hide. He told me he was doing several projects at his school and in his personal life. He had organized all the teachers at his school into two groups, the natural sciences and social sciences. The natural science teachers were asked to organize two projects, a "biological corridor," an entire area within the campus of their institution, to be used by children from various schools in Morelos. Here they can learn to understand and appreciate the care and feeding of 80 animal species, some of them endangered. The "biological corridor" is part of the project, "Sustainable School," where two valuable kinds of behavior are taught:

- Ecological activities such as recycling campaigns, environmental protection, energy conservation, reforestation campaigns, and green fences.
- Social actions such as responsibility, respect, honesty, solidarity, team work, addiction-prevention campaigns, campaigns to prevent bullying, and displaying murals on family togetherness and communication.

To develop these two projects, Professor Amador got the support from the researchers of the Mexican Institute of Water Technology, which will provide advice at the highest level.

Next, Professor Amador organized the social science teachers to develop the project, "Inclusion of Students with Disabilities," which caters to youngsters with special needs and low performance. This project gives special attention to adolescents with school problems. He told me of a young and very tall student, about 1.8 meters, who had been labeled as mentally retarded. As a result of more personal attention and empathetic and accepting treatment, this young man is now the head of the group.

Professor Amador also shared with me, with a big smile of satisfaction, that he received a \$120,000 pesos donation to buy instruments for a wind band, and he already has a music teacher who graduated from the National Conservatory. He will serve to teach music to young people.

Now, he doesn't want to retire because he loves his job. Amador is also now encouraging one of his sons, who had some personal problems, to finish his career in Networking and Telecommunications at the UTEZ, and he is making the highest grades.

I can say that Professor Amador's development followed precisely the axiological process, S→E→I. At the end of the first module on formal axiology and human development, he showed the shock that I described. He then developed several practical projects that add value to his existence and to his school. He now lives intrinsically through his employment and his family.

6. Development of the Second Diploma Course

By the good results of the first diploma course, IEBEM managers at UTEZ instituted more courses and degrees dealing with information technology, significant teaching in math and English, and sustainable development.

The second "Diploma Course in Values, Significant Learning, and the Healthy Development of Human Potentials" was given to 27 high school directors or deputy directors in Morelos between September, 2011, and January, 2012. This time, we improved some aspects of the course, for example:

- We scheduled sessions of 6 hours duration instead of 8. From the first session we learned that formal axiology requires much attention. Instead of taking one Saturday class per week for 6 hours, teachers in the second session decided to take a second 6 hour class on weekdays to finish the Diploma Course in half the time. This allowed us to improve the organization of time for better impact. Teachers did not miss classes and arrived most promptly at 8 am to start their classes on time.

- To mitigate the "shock" caused by experiential learning of formal axiology, in the "installation of hope" aspect of their growth, I tried to raise the morale of teachers immediately with experiential exercises that emphasize self-esteem, logo-therapy, and music therapy. And we offered a real chance for healthy development of their human potentials, applicable to their school situations. We toured slowly the UTEZ's IT Cluster so they could speak with students and teachers involved in software development projects, Networks and Telecommunications, and Process Automation.

- We changed the order of the modules. The teamwork module, formerly in sixth place, was moved to second place in order to encourage collaboration among teachers and to develop tasks to be requested in later modules.

The IEBEM believes that this Diploma Course will be taken by all 60 directors or deputy directors of all Junior High Schools in Morelos.

7. Development of Four Groups of the Diploma Course for Teachers and Special Education Directors

The IEBEM's Special Education department adopted our Diploma Course for 110 managers, psychologists, special education teachers, social workers, and departmental administrators. This area of education is responsible for the care of children and adolescents who require special attention for one of two reasons:

- because they are young and gifted children, either intellectually, artistically, or athletically, or
- because they require specialized care for slow learning problems or physical disabilities such as blindness, deafness, fine motor problems, or are in the terminal stages of cancer or leukemia.

This delicate work requires special education specialists to interact with parents and teachers of special children in order to facilitate their integration into mainstream schools.

This group took the Diploma Course in two periods. The first was from January to August, 2012, and the second was from October, 2012, to April, 2013. Those who participated in these four groups of our Diploma Course are very sensitive to humane treatment since they are in contact with suffering people, and they are trained to deal with people with disabilities and special needs.

8. Some Results of the Diploma Course

Our experience with the first two groups showed very positive changes almost immediately in their value systems, their work, and in their personal lives.

First, there was a development in the value systems of all participants. Four people reported very profound changes not only in their values but also in their daily work. Two teachers expressed strong shock in their own value systems and their Life and Career Plans and realized that they must try harder to find the bright side of things. One of these teachers who is about 60 years old developed a project to work with special children. This involved group dynamics to awaken children to the joy of living through games that encourage human contact. This will also help him personally.

On work issues, a special education director, a woman of the town of Ayala, Morelos, successfully completed the Diploma course. She soon sent a group of four people from her school to take our course: a psychologist, two teachers, and a communications teacher. They hope to implement all the ideas and work as a team in special education to provide high quality care to children. They will begin with Parent Workshops that promote visual motor activities and familiar games where personal contact without the use of computers foster communication from person to person together with family dynamics and joy.

In their personal lives, teachers, psychologists, and social workers shared very intimate and deeply moving things. For example, Mrs. X, a woman of about 50 years with very high academic achievements was very hard and rigid in the first two classes. After the third session, she courageously share with the whole group a heavy burden she was carrying: her husband died of AIDS. After discussing this hard experience, her mannerisms softened. She noted that she discovered new meaning in her whole life while preparing her Life and Career Plan.

Professor Y is a beautiful woman about 40 years old with advanced degrees. After seeing that her personal profile values indicated a materialistic trend, she shared with me these very personal details. She was helping in a Church as a catechist. She has a son who is recovering from a drug problem. She has a boyfriend who is married, and they have very discreet trysts. When she was developing her Life and Career Plan, Y approached me to have a very open and frank personal interview. We analyzed how she would be affected if she continued her secret relationship. Then, at the next session, she looked at me with a big smile and radiant face. She ask, öGil, how do you see me? Do I look happy? I have decided to end my married boyfriend. I do not want to live my life in hiding. I want to live openly and freely!ö Last March, I found her in the IEBEMös office, and she ran after me to tell me with a big smile, öGil, I have radically changed my life. Now I have a full-time boyfriend who I can show openly to the world.ö

In each class, these experts in special education created a warm and festive environment. All attendees openly expressed the benefits they have received. Wherever I find any graduates of our Diploma course, they warmly greet me and give me good news about their own applications of the idea of the good. Consider these testimonials.

1. öI think this will facilitate my daily contact with parents, students, teachers and family peers. The issues we consider help us to work together, to have better communications, and to give solutions and answers to occurring needs. I have more dedication and desire to help people in need.ö

2. öThese reflections helped me to improve my educational practice, and I'm applying what I learned to improve the collective group of my students. I have begun to see good results. My students are better motivated, I see that their work is improved, and they are more involved. Most importantly, an atmosphere of harmony and respect has been created. Students do not make fun of the differences in their classmates with special educational needs, and they are now trying to understand them and live and interact more with them. As a teacher I have noticed that the changes I have implemented within my group have worked. I realized that my way of being and acting affects the whole group setting. This was not an experiment; it was actually a challenge because I had to break the routine I was used to.ö

3. öThis Diploma Course helped me much as a person because I learned to recognize my own emotions, to express my own thoughts, and to make my own decisions. In my work, I learned to be a patient person who tries to understand and respect the way of thinking of each student and to recognize that despite their limitations they may be very capable of achieving what they really want, namely to acknowledge that everyone is valuable for what they are and not for how they look.ö

4. öI have learned that only I am responsible for the way in which I build my life. My immediate task is my self-realization by consciously living what I think, feel and do. I have raised my short-term goals: physically, to watch my diet and lose weight); mentally, to nourish my mind with encouraging news, human development books, and by listening to pleasant music; emotionally, to learn to control my negative emotions and to express my positive emotions); spiritually, to grow closer to God. I conclude that human development is a task of conscience and consistency. I have started to apply myself to my goals and in truth I feel much better.ö

5. öI want to spread the knowledge I received, and I will convey to others how much I've learned in this Diploma Course. I will do my bit to help people become better beings human and so to lower crime rates and vandalism. If we all give a little of ourselves, we can make many significant changes.ö

9. Projects with Students of Outstanding Intellectual Capabilities

As her project for the Diploma Course, the Social Worker, Ruth Martinez Valle, proposed öImproving Interpersonal Relationships in Elementary School Students.ö This involved a series of conferences and workshops for students, teachers, and parents on topics focused on the reflection of values. Also, she proposed exercises developed by outstanding students named öThe Mailbox of Friendshipö during the month of February. Here, students prepare a letter to a colleague, teacher, or friend. During the last week of the month, the letters would be delivered to the addressee. She also proposed that outstanding students develop bulletin boards each month, with topics related to

the meaning of the values of friendship, responsibility, bullying, and respect. The project also invited these students to organize games and perform theater to dramatize these values.

M. A. Dalia Moreno Mañón, who was Head of the Department of Special Education in 2012 and M. A. Liliana Arce Flores, current head of the department, expressed high interest in getting maximum development of students with outstanding intellectual skills. Thus, for 2013 the UTEZ was hired to teach a Diploma course on Skills in Robotics, 160 hours, to 20 outstanding elementary school children. They also hired the UTEZ to consult in implementing the project, "Development of Sustainable School Prototype Designed for Sustainable Practices," to be implemented over four months, from February to May 2013. In this sustainable school project, 20 students with outstanding skills, are receiving training to develop sustainable development projects. These three activities are now underway.

10. Conclusions

This is the first time that Mexico successfully implemented an educational project based on formal axiology, applied to human development, and aimed at teachers, administrators, psychologists and social workers in elementary education. As a result, 154 people whose lives were positively impacted are spreading Hartmanian Axiology in public schools throughout the state of Morelos. I think there are three key factors in the success of this project. The first is the organizational support of the UTEZ and the IEBEM to spread this kind of diploma courses with the education's workers in Morelos.

The second factor is that persons who participated in the Diploma course appreciated the logical power of Formal Axiology to explain the process of human development, quality, and labor competition.

And the third factor was the impact of the modeling, the students of the diploma course could see high quality results in the reality of UTEZ, an institution of public education. All officials who participated in the Diploma course were treated with great respect and warmth. This high-quality modeling, high competitiveness, and high human quality breathing through the atmosphere of the UTEZ has been very important to achieve an "installation of hope" in the minds of teachers.

All this encourages us to think that persons who graduated from our Diploma Course will multiply these ideas in their own schools with teachers, students, and their parents. All of them may then join the battle against the evil of organized crime, now destroying Mexican society.

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MEASURING ETHICAL CLIMATE IN AN ORGANIZATION: ALIGNING FOR EXCELLENCE

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Abstract

Ethics in organizations has become a critical issue, one which requires an accurate assessment of ethical vision and of the alignment among various elements of the organization. Moreover, the sensitive nature of the concept requires a measurement methodology which counteracts the bias potential of self-report assessment. This article proposes a way to address these requirements.

It reviews the importance of addressing the ethics issue and delineates a methodology based on the logic of decision making rather than on taxonomies, codes, and self-report. The basic understandings of axiology and axiometric measurement are described, as well as an axiological ethics model. Preliminary organizational analysis yields rich data addressing both the relative importance afforded to key components of ethics by management and employees, and perceptions of the degree to which a positive ethical climate exists.

The data collected indicate that the organization studied had uneven alignment. Management misjudged the level of congruence between management's vision and employees' vision, and there were often wide gaps in both groups between vision and perceived reality. Moreover, some issues that were primary among employees received little attention by management.

The article proposes that this new axiometric methodology transcends the limits of both conventional self-report and observation measures of sensitive issues, and provides an ideal resource for identifying an organization's targets for ethical training and transformation.

Although the history of economic progress is rich with stories of fraud and dastardly dealings, today public sensitivity to them is more fine-tuned than ever. Ordinary citizens watch their stock funds crumble as a result of duplicitous corporate decisions. To add to the awareness-producing, the media continues to headline corporate fraud and deceit.

Words like *Enron*, *WorldCom*, *Merrill Lynch*, *Tyco* have become code words for *crisis in ethics*. Congressmen labor to pass back-breaking auditing laws that serve to ease their previously lax monitoring, but create consternation. Companies establish ethics officers to com-

* This Journal does not usually publish articles that were previously published elsewhere. An exception was made in this case. Connor previously published this article in Industrial and Commercial Training, 38:3, 2006, 148-155 and is reprinted here by permission.

municate to the rest of the community that they are upright and above board. And the bad news continues. So frequent have the newcomers in fraud become that we risk becoming oblivious to them, considering them normalcy.

The time is ripe, it seems, to address more vigorously and more deeply than ever before, the issue of organizational ethics. Vigor, it may be objected, is already present in the pressures placed on companies by such forces as Sarbanes-Oxley or the Federal Sentencing Guidelines, all compliance focused. But that is only one aspect of the ethical landscape. This article asserts that ethics is a complex concept, and one-dimensional fixes, while perhaps better than evasion of the issue, are not adequate. More than compliance measures are required. Moreover, as the individual in the bowels of the organization know only too well, espousing an ethical stance by management does not guarantee that the rest of the organization—or even management—is in alignment with that stance.

Alignment is a critical variable in the ethics equation. The above-mentioned Federal Sentencing guidelines require “Due diligence and the promotion of an organizational culture that encourages ethical conduct.” That is, a culture in alignment with the ethical standards of the organization.

What I offer here is a model of organizational alignment based on Robert S. Hartman’s contributions to formal axiology and Wayne Carpenter’s extensions of that science. I feel formal axiology, and the metrics that have been developed in conjunction with it, grace us with a unique way to address both the complexity of the notion of ethics, and the gaps in ethical alignment present in an organization. Only when we have a rigorous measure in which to determine the gaps to be closed, can we hope to see prompt, effective, efficient action that supports ethical healing in our organizations.

The format of this article is simple. I will first review the basic understandings of axiology and axiometrics¹, then position the metrics in the context of conventional psychometrics. Following a brief discussion of the axiological ethics model, I will discuss preliminary findings from organizational alignment research, proposing areas for further study.

What is Axiology?

Etymologically, axiology is the study of value. Early uses of the word were often applied to objects, indicating the “worth” of the object. That use of the term appears even today, loosely applied to tactics for evaluating such things as stock market picks, real estate, and even marriage partners. Philosophers have explored many different dimensions of what they called value theory, using such delineations as “instrumental vs. intrinsic worth,” “basic values and derived values,” or the value analyses of specific persons and things.

Hierarchies of values have been proposed, though measures to support the rankings were usually weak or absent.

Positivists found the reach beyond relative dimensions of value practically meaningless, given the multiplicity of values. Others sought to propose an arbitrary hierarchy of these particular values and equate this with goodness. G. E. Moore launched a strong critique of many of these philosophical approaches, espousing instead a “metaethics” that raised itself above particular values.

Moore’s struggle to understand the good was the stimulus for Robert S. Hartman to merge a desire to clarify Moore’s insights with his own life’s mission: to understand how to “engineer good” the way Hitler’s regime engineered evil. (Hartman had been a classmate of many of the

ranking officers in Hitler's government and risked his safety debating their policies in public.)

For Hartman, value science up to that point was not a universal science. He noted that the rules for Kantian ethics cannot be used to draw inferences within Spinoza's system and vice versa, however much either system be tightly reasoned. There was need, suggested Hartman, for a system that was not dependent on relative interpretations of what "good" was in a given situation. Hartman saw the need for the kind of universal language and norm as existed in sciences such as physics.

Hartman's axiology, captured clearly in his *Structure of Value* (1967), posits a universal norm of human valuing based on the axiom that something which possesses more positive qualities is better than that which possesses fewer. Extrapolating from this basic notion is the tripartite model of value that forms the basis of Hartman's formal axiology. Hartman distinguished value as being of three kinds, Intrinsic, Extrinsic, and Systemic. These levels are defined in the following chart.

Intrinsic Value:

Personal or spiritual value; defined by an infinite number of properties or value, which can be valued in an infinite number of ways.

Extrinsic Value:

Practical or situational value; defined by finite, descriptive properties which can be compared in an infinite number of ways.

Systemic Value:

Conceptual or theoretical value; defined by a finite number of properties

These three dimensions are not foreign to philosophical thought, and are even reflected, if crudely, in other's views of ethics. They correspond somewhat, for example, with the classical threesome of beauty, truth, and wisdom. The founder of the Institute for Global Ethics, Rushmore Kidder, mirrors this triad more closely, speaking of ethics in terms of care-based, ends-based, and rule-based principles (1995, 2005). Others have recognized similar correspondences with our way of seeing the world. Consider the ubiquitous "people, task and system" taxonomy of organization specialists.

What Hartman achieved was to provide the meta-system to explain the internally consistent and universally valid relationships among these dimensions. His formal axiology explains not only particular values, but also all values and all value systems. It is, in effect, a consistent and logical, mathematics for all thinking and all thought systems.

Hartman reasoned that previous treatments of ethics were one of two things: either they equated ethics with definitions, such as "a theory of human conduct" or "a doctrine of choice," or they were about the writings of individual philosophers.

The first alternative leads to the confusion created by the multiple interpretations of what is meant by such things as "right choice" or "proper human conduct." The second alternative leads to the question of which philosophy is best. To respond to both dilemmas, a formal theory of value

theory is required. It is this theory, based on the universal language of mathematics, that Hartman developed for us.

What is Axiometrics™?

Hartman's work was not complete when he died in 1973, but it didn't remain undeveloped. It was taken and extended by a student of Hartman at the University of Tennessee. Hartman was primarily interested in developing a formal theory. His student, Wayne Carpenter, among others, was to take that theory and refine its measurement, producing instruments that have been used over the past 30 years to measure, objectively and specifically, people's thinking and deciding capacities.

Carpenter was consigned, while at Fort Benning during the Vietnam era, to develop a command decision manual for helicopter decision making simulation. In researching the various decision theories over the centuries, Carpenter realized that what the great thinkers were describing as decision theory, was in direct harmony with what Hartman had been exploring in his development of formal axiology. What had been seen as the interesting explorations of one of his professors took on new weight for Carpenter in his immersion into human decision-making. Stimulated by the applicability of what Hartman had theorized, Carpenter decided then to devote his life to working with Hartman and his theory.

Hartman's death in 1973 prevented Carpenter from working directly with Hartman. Hartman's widow, however, gave to Carpenter her husband's profile interpretation notes. From that time on, Carpenter's focus has been on developing, validating, and extending Hartman's work. This was the beginning of the steady process of building a solid system of axiological measurement that continues to this day.

The result of Carpenter's work is a measurement system which has captured the unique decision pattern of individuals to a degree not possible with conventional self-report assessments. From that axiometric system, Carpenter has produced analyses of thinking and decision making competencies which focus not only on *how* people think and value, but on *what they value*. It is both of these, and especially the latter, that has provided the rich resource for the subject of this paper, the analysis of ethical alignment.

How Does This Clarify Our Understanding of Ethics?

Axiology and Ethics: Using Hartman's basic axiological relationships, it is possible to see axiology as contributing a universal system for understanding any concept. Hartman himself was particularly interested in ethics, which he described as "the intrinsic valuation of the individual person." As such it is more valuable than aesthetics ("the intrinsic valuation of the individual thing"), sociology ("the extrinsic valuation of groups of persons") and economics ("the extrinsic valuation of the individual thing"). This is because intrinsic valuation is more valuable than extrinsic valuation, which is more valuable than systemic valuation. For Hartman people were more valuable than things, which were more valuable than rules, though all three were important to a complete valuation of the world.

Hartman's formal theory met the challenge of measuring intangibles by delineating the order in our valuing processes. From this he built a framework for calculating the clarity and focus of our thinking. By examining the attention paid to specific items in a ranking relationship, and matching that against the norm, Hartman identified the actual pattern of valuing which a person

used. This is the legacy upon which Carpenter built. This is especially relevant to our interest in ethics. Carpenter has been able to take the concept of ethics and find an objective way to measure that concept's structure, as well as the individual's potential for translating those concepts into ethical action.

Axiometrics™ and Ethics: In the realm of axiometrics[†], human beings are seen to experience reality and make decisions through all three valuation filters, with varying degrees of clarity. Moreover they focus on all three kinds of realities, systemic, extrinsic, and intrinsic, to varying degrees. As they process these realities, they tend to focus their decision making on what we might refer to as three kinds of thinking:

- Intuitive thinking (Intrinsic): focus on the uniqueness of the person or thing, accepting it in its uniqueness without analyzing or critiquing
- Pragmatic thinking (Extrinsic): focus on the properties, steps, and parts of something in the context of its environment
- Conceptual thinking (Systemic): focus on rules, order and meaning, on system, structure, and goals.

While there are classes of objects proper to these three kinds of thinking, all classes can be experienced through each of the forms of valuation.

The proper object of intrinsic thinking is people, yet it is possible to perceive a glass of water intrinsically. A good instance of this would be the case of someone who had been deprived of water for a long period of time, as in being stranded in a desert. That water would have a uniqueness and a singular value to that person, inviting an immediate connection.

The proper object of extrinsic thinking is usually physical objects. Yet it is possible to approach a person extrinsically, focusing mainly on their status or usefulness. I might, on the other hand, see a rule or procedure (properly a systemic object) extrinsically, emphasizing the impact it can have in achieving a result, or the reward that will accrue if I follow it.

The proper object of systemic thinking is concepts, rules, systems, or order. Yet I can see people as concepts, or as meeting or not meeting my standards, thus experiencing them systemically.

Using this logic, axiometrics[†] enables us to build measures that tap the structure of a person's notion of ethics.

Intrinsic thinking about ethics focuses on the personal ethics: on personal conscience, an individual's sense of responsibility, and personal integrity.

The extrinsic dimension focuses on practical ethics. It involves seeing oneself as responsible for the common welfare, as willing to do what is required to carry out good deeds, and as feeling an obligation to do good.

Systemic thinking about ethics is all about moral code. It speaks of respect for rules, compliance with regulations, and clarity of ethical principles.

In other words, axiometrics[†] provides us with an assessment not only of a person's thinking process (*how* they think), but of the structure of their very concepts (*what* they think).

It does this in a way quite different from conventional psychometrics.

Conventional psychometrics uses inductive reasoning in reaching its conclusions about the variables measured.

Measuring Capacities: For instance, in devising a personality assessment, a common practice is to collect self-report data on individuals, then factor analyze the data. Those

items that cluster around a specific factor are named according to the general configuration of that cluster and are considered a unit. The reality of the cluster rests solely on the fact that the items within the cluster correlated with one another, not that they were organically connected to each other.

Measuring Values: In measuring one's value system using psychometrics, a common practice is to ask the person to agree or disagree with various statements describing value positions. These items are then grouped together into more general variables which are then identified as the value structure of the individual. Again, the inductive process is employed.

Axiometric measurement, on the other hand is deductive. Rather than reasoning from a body of specifics to a general cluster, axiometrics identifies a general norm and deduces the specific correlates. In this case the general mathematical norm is that discovered by Hartman and validated again and again by Carpenter.

Measuring Capacities: Individuals are not asked to describe themselves or to agree with statements. They are asked to complete a mental task, and the pattern they use to complete that task is recorded. Their thinking patterns are then matched against the universal norm. From the unique deviations that occur around that norm, tightly reasoned conclusions are reached about that person's intuitive, pragmatic, and conceptual capacities.

Measuring Values: A parallel process is used to identify the structure of a person's thinking content as well. Individuals are asked to perform an actual valuing task involving ethical dimensions. Again, their patterns of valuing are measured against the mathematical norm to determine what they do and do not pay attention to in their valuing.

The measurement of the structure of value concepts is especially cogent in the analysis of ethical climate. Measuring ability to think, while important, is not enough. Ethical behavior is less a function of a person's thinking capacity as it is a function of their ability to integrate the structure of their value concepts into that thinking capacity. The brightest people can still be capable of fraud and deceit.

On an organizational level, the most well-crafted vision statements regarding ethics could be crafted in all sincerity, yet never be reflected in organizational action. As Stuart Gilbert of the *Ethics Resource Center* in Washington states it, "at Enron, ethics was simply a piece of paper with three Ps – print, post [in the company lunch room], and then pray that something is actually going to happen." This can be said of many other organizations as well.

In analyzing and building an ethical organizational culture, it is imperative to identify the particular *valuing process* that people use to make decisions, that is, the quality of their decision making and problem solving ability. It is equally important, if not more so, to identify the actual *structure of their value concepts*, the content of their thinking about values. It is this latter which informs their decisions. Even the most capable problem solvers with faulty attention to the correct value structure can fail to act ethically when required.

This, of course is a sensitive area. Values are not only personal; at times they expose one to possible judgment if revealed. Moreover, some people are clearer than others about what values they actually hold, or how to label them. Thus direct query about a person's values may not yield

total accuracy, a fact which renders self-report assessment of values less than optimal. What is required is a way to objectively track a person's valuing process, and to capture the structure of their value system objectively.

Axiometric measurement affords this objectivity. Rather than agree or disagree (or check or leave blank) items representing values, in axiometric systems the respondent completes an actual valuing exercise. The structure of what is paid attention to and the value it is given is then recorded. This provides the integrated picture of the content of that person's value system.

How Does This Clarify Ethical Culture Analyses?

An organization's culture is its system of values and beliefs. It can be revealed in the behavior of its members or citizens, but this is not guaranteed. As has already been noted, espoused values are not always those that are lived. Social psychological research alone is a testament to this fact. Note the volume of research studies that have been devoted to the attitude-behavior link.

Measuring Capacities: What axiometrics[†] provides for us is a clear, precise measure of the degree to which a person is susceptible to making a bad decision. This risk can be of three kinds. First, there can be a lack of capacity to effectively make decisions, that is, to identify problems, alternatives, and solutions. Second, there can be the risk of making poor judgments more often than good ones. Third, there can be the lack of capacity to translate values and beliefs into action.

All these can be measured axiometrically. With axiometric methodology, Carpenter states, "An individual is determined to be at risk (to be susceptible) in specific situations and under certain conditions. What we are after is the definition and measure of just those conditions and situations which put a person at risk and why in fact that risk exists." (1991)

Measuring Value: In addition to measuring the degree to which the values- behavior gap will be bridged, Carpenter's work allows us to determine the nature of the culture in which the person finds himself, and the gaps that exist therein.

Considering vision to be the concept of what should be, and reality the perception of what is, gap analysis poses several questions:

Does the leadership group in the organization have a clear vision as to what ethics is, and does this match their perception of the reality in their organization?

Do the employees have a clear picture of what the vision is, and does this match their perception of the reality?

Does the leadership vision match the employee's vision? Do they see the same reality?

Gaps in these areas clearly put an organization at risk where ethical behavior is concerned. Those charged with the task of understanding business ethics can play a particularly valuable role in helping organizations clearly see the gaps, and see the serious implications of such gaps.

The Measurement Methodology: The questions raised are important because they involve intangibles, and are often misaddressed. Asking outright questions about value and belief is at best risky business. Especially in today's organizational environment, charged as it is with external and internal pressures to comply and to be "politically correct," pressure to present oneself in a particular light abound. Axiometric methodology allows us to address these questions objectively,

by crafting measures to capture the decision making of the organization *in process*, not by post-decision report. The tactic is not “how do you make these decisions?” but “let’s see you make these decisions.” This is admittedly a different kind of query than the common value lists and questions used conventionally in value surveys. But it is an important kind of question if we wish to precisely and objectively capture a complete picture of the person’s decision basis without the risk of self-presentation bias.

Three kinds of assessment are generally being used in organizations today: 360⁰ feedback assessments, self-report assessments, and assessment centers. The first records the alleged view of others about a person, the second captures the alleged self view, and the third, because it has the individual actually behave, strives to capture the actual competency. Axiometric measurement is more akin to the last, though far less time consuming and far less expensive than assessment centers. It merely asks a person to do a mental task and then tracks the process used to do that task. The pattern is then related to the mathematical norm, and clear, consistent corollaries are drawn.

The statements used are carefully drawn up or items are identified according to a rigorous adherence to the axiometric logic. Rankings of these items and/or statements are once again matched against the rankings in the universal norm and patterns noted. This is a clearly efficient and effective way to measure decision making in process. Results of this measurement include not only what a person is paying attention to and to what degree of focus, but also what they are not paying attention to, what is “not even on their radar screen.” It should be apparent that, in fully analyzing an organization’s value culture, the inattention variable would be an important variable.

The Measurement Outcomes: The dimensions of ethics measured correspond to the three axiological dimensions mentioned above. Axiometrics[†] measures the degree of similarity individuals in the organization display with regard to their attention to and clarity of the following variables:

Intrinsically: ability to see oneself as capable of both good and bad, ability to weigh both good and bad and see good as better, ability to identify oneself with and commit oneself to the good,

Extrinsically: ability to take responsibility for the good in others, ability to take the actions required to achieve good results, ability to sense an obligation to take good action

Systemically: ability to respect rules and codes, ability to determine good code from bad, ability to clearly understand moral code.

Each of these components is analyzed according to its three-fold constitution, and strict logical corollaries are drawn.

Validation of the Model and Methodology: It is not the purpose of this paper to provide an extensive analysis of the validation process for this model. Validation studies have been conducted over the past 30 years, involving academics from such institutions as Vanderbilt, Princeton, University of Chicago, Yale, and Harvard. It has been validated for organizational use according to EEOC Guidelines, showing no significant differences due to race, age, or gender. Moreover, the methodology has been reviewed and approved internally by the legal and psychometric departments of such companies as Arthur Anderson, Drake Beam Morin, GTE, Sara Lee, and Hospital Corporation of America. A copy of the validation studies for the Hartman mathematical norm and for the constructs generated in the axiometric reports is available on Wayne Carpenter’s web site: <http://axiometricsinternational.com>. A summary of the internal reviews is available on the CFAAM web site: <http://cfaam.org>.

Preliminary Organizational Data

Consistent with the spirit of this paper, which is an introductory review of a model and methodology, the preliminary research data that follows is heuristic, not definitive. I offer such data as a taste of what is possible if organizational ethics is more fully researched this way.

The Sample: The data is based on a sample of top managers and 70 employees in a small processing company. The employees ranged from line workers, maintenance crews, transportation crew, their group leaders, and office staff. The data was collected for the purpose of stimulating discussion about corporate culture in the context of a Total Quality Management intervention. Thus, in the analyses that follow, only general conclusions will be discussed.

Management Vision vs. Reality: One analysis involved the degree of congruence between the managers' vision of the organization and their perception of how this vision was being carried out. Identification of this kind of gap is important for several reasons.

First, organizational stress is created when what is desired is perceived to be absent. This has two possible effects: it can create motivation for change, or, if strong enough, can debilitate or burn out. This analysis can indicate the potential for one or the other, as well as suggest areas of ready motivation to be tapped for improvement.

Second, many managers are not clear as to what their actual vision for an organization is. Often vision statements reflect this in the innocuous expression they are given in official "vision statements" and in the half-hearted effort that is put into creating them.

A general graph of the data shows the following, where the percentage score represents those in the sample who felt that the dimension to the left was an essential element in the culture of the organization:

	MANAGEMENT VISION	MANAGEMENT PERCEIVED REALITY
Personal Ethics	40%	0%
Practical Ethics	50%	70%
Moral Code	60%	90%

It can be seen from this sample of managers that less than half felt that conscience should be an essential factor in creating an ethical environment. Yet when these same people were asked in a Likert type scale if it was essential, almost all of them agreed that it was.

Were they lying? We don't know. Bias in response can be either conscious or unconscious and a question like that asked directly might set up an automatic bias response. Moreover, it is possible, as indicated earlier, that the managers had never before reflected on whether or not they saw conscience and personal ethics as critical to an ethical culture.

What we do know is that when they were given a value task to perform, the ethical items representing intrinsic value received very little attention. It is also instructive to notice that their perception of what actually existed (Reality) was even less intrinsically focused than what they thought should exist (Vision). As a group, not one saw the current situation as characterized by focus on conscience and personal responsibility.

As low as the Personal Ethics percent is, the perception of what exists is even lower, producing the organizational stress mentioned above. As low as the expectation is that personal ethics should be essential, the managers perceive it to be even less important than it should be.

Findings such as this suggest fertile ground for discussion and organizational transformation potential. In addition to these findings, a deeper analysis of the axiometric data reveals that for the managers, conscience was less important than either practical ethics or moral code. An intriguing point of discussion in all this is that formal axiology defines ethics as the intrinsic valuation of the person. If conscience is overlooked, management is left with sanction-based governing, or worse. If the personal ethics is left out of one's concept of an ethical culture, the ethical environment is out of balance and dependent upon external forces for its motivation.

Other stress points that show up in the data are those between management's vision of practical ethics and moral code. It is clear from the data that in the managers' view there is more emphasis on practical ethics than should exist. The same is true of moral code.

Employee Vision vs. Reality: When we look at the responses of the employees, however, we see some interesting differences.

	Employee Vision	Employees Perceived Reality
Personal Ethics	9%	5%
Practical Ethics	65%	55%
Moral Code	50%	95%

Most employees don't feel conscience has a key role in organizational ethics at all, and furthermore, don't see it in action, either. Most employees feel that emphasis is overwhelmingly on moral code, though half feel ethical actions are still characteristic of the ethical environment. Only half think moral code should be an emphasis, while the majority, but only a slight majority, indicate that ethics involves doing the right thing.

Less than this, though still more than half, perceive this carried out in the organization.

Management vs. Employee Comparison: When the two sets of data are viewed side by side, more intriguing comparisons are seen.

	MANAGEMENT		EMPLOYEE	
	Vision	Reality	Vision	
Personal Ethics	40%	0%	9%	5%
Practical Ethics	50%	70%	65%	55%
Moral Code	60%	90%	50%	95%

The differences between Management and Employee vision show up clearly here when it comes to conscience or personal ethics. Management is more focused on the importance of conscience than the employees are. A look further into the data indicates that the employees felt overwhelmed by the emphasis on rules and compliance, and felt that their own sense of what was right was not going to be taken into account at all. What this data shows, even as primitive as it is, is that they were incorrect in their assumption.

Moreover, discussion of the data in team meetings with management verified that fact.

Both groups saw a heavy emphasis on rules and procedures, but neither group was in total agreement that this should be the emphasis. This is one of those areas where fruitful problem solving can take place. There is internal stress in both groups, in that fewer people think it should be an emphasis there than think it exists. The gap is highest for the employee group, which could suggest skepticism about doing anything to balance the emphasis. But it is possible that the stress will create enough motivation for productive discussion and development to take place.

When the data is analyzed more specifically and some of the logical relationships are drawn, additional differences exist. For example, both Management and Employees felt that an ethical environment required them to guard against unfairness and fraud, but only the Employees were sensitive to lack of accountability. It was not a factor in the Management vision of ethics at all. Discussion of these results yielded some fascinating insights into the belief system of the organization, including the conviction on the part of the employees that management looked the other way when employees were lax at work or failed to comply with procedures. This factor would probably not have surfaced in the discussion of one of the more conventional self-report climate assessments, for it requires an analysis of what is not attended to, and asking the question about it creates attention.

Implications of the Model and the Preliminary Data

It must be stressed again that the data is preliminary. There is a serious need for the collection and analysis of further data using this methodology, followed by rigorous statistical analysis. Most of the work that has been done so far is proprietary analysis done for specific organizations and, while subjected to the rigors of axiometric validity, has not been published as a stimulus for further research. In fact, the methodology up to this point has been in the hands of a small army of consultants who have been more concerned with building their business on it than furthering

research. The time to correct that emphasis is now. Hence this invitation to become partners in bursting wide open the potential of axiometric methodology for analyzing the ethical temperature of organizations objectively and honestly, the better to propose ways to strengthen them.

Research Hypotheses: The studies done so far suggest several intriguing research questions:

- What is the relationship between personality variables and ethical stance?
- How does ethical stance affect leadership style?
- How does ethical stance differ in organizations with widely different missions?
- What is the impact of ethical stance upon productivity?

This last question is an especially intriguing one. We are told by numerous sources that an ethical organization is a more productive one. Is that wishful thinking or solid fact? The studies that have been done are often simply correlations of degree of compliance measures with productivity measures. If an ideal ethical climate involves all three dimensions of value, how does this play out in actual organizations? What is the impact when the intrinsic is overemphasized, as many idealistic human-relations-centered models might encourage? What is the impact with the main emphasis is only on öthe greater benefit for the greater good,ö a solid extrinsic dimension? What are we missing with the current overemphasis on moral code?

Areas of Applied Science: Research possibilities are not the only area to benefit from attention to axiometric methodology. If our organizations are to become the ethically strong organizations our culture claims it desires, changes must be made. Several areas of organizational transformation suggest themselves:

The research so far shows that it is possible to discover, in an objective way, where the gaps exist between leadership's thinking and the thinking of the rest of the organization. Discovering these gaps leads to fruitful problem solving around how to address and close them. Fact finding is a prerequisite for effective problem solving. This methodology offers a splendid way to make the ösoftö side of business ethics tangible and öhard.ö

The research so far shows that leadership is not always aware of what the rest of the organization thinks. This process gives leadership a quick, accurate way to check vision alignment and to discover not only what the rest of the organization thinks, but to clarify their own thinking. Do they really intend to discount practical ethics, or personal ethics? Are they satisfied that they don't see more attention given to guarding against irresponsible behavior? Where are they assuming the followers are following when actually they are not? And what needs to be done to communicate better in order to create alignment?

The research so far reveals that leadership can be viewed with skepticism when such skepticism is not warranted, such as when employees see less attention to personal ethics than management actually possesses. Findings such as this can help to create an organization where morale problems are reduced because there is increased understanding among the levels. Behavior is not revealing of a person's thinking in every instance, though it is always consistent with it. As different parts of an organization understand the others' thinking, misinterpretations of behavior can be reduced and collaboration increased.

Conclusion

Why is it important to consider axiometrics? as a key to greater understanding of organizational ethics? For three kinds of reasons. Intrinsically, if we are truly interested in building an ethical

culture, it is important to help individuals in organizations, both leader level and below, understand accurately the vision and perception of everyone in the organization and assist them in closing the gaps to understanding. Extrinsically, until a complete, realistic picture of the organization is determined, problem solvers will be apt to address the wrong problems, and efforts to impact culture change will fall short. Systemically, compliance with regulations is important. But compliance without surveillance will only be achieved when a complete view of the ethical life of the organization is presented.

This paper is an attempt to introduce a methodology and model that has been quietly operative for more than 30 years, in organizations around the U.S. and abroad. It is my conviction that it can provide both rich research potential and effective intervention impact in an era that is crying for both. This is especially true of organizations undergoing a crisis of ethics-- and those organizations that are wise enough to seek to avoid such a crisis. I hope the kind of thinking expressed here will contribute to both dimensions.

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VALUES EDUCATION: AXIOLOGY AND PROCESS ETHICS

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Abstract

Dr. Robert S. Hartman laid the foundations for a Science of Value in *The Structure of Value*, (1967), and Dr. David Mefford laid the foundations for a science of valuing, or the process of *valuation*, in his dissertation, *Man as a Valuing Subject*, (1989). This article focuses on the *process* of strengthening global institutions through educating students in axiological value science and the knowledge of good. Our educational text and course are designed to teach ethical life and decision-making skills in progressive steps, with the goal of enabling students to better understand the world and themselves from an axiological perspective, and to participate in shaping a better shared future for the world. We emphasize the unity and interdependence of human individuals within societies, developing a strong and clear sense of self and appreciation of others (cultural diversity), affirmation of social justice, equality, and human rights, as well as building peace and actions for a sustainable future in different times and places. The course clarifies and promotes universal positive values and empowers students to learn about the world and themselves through the progressive lessons of the axiological dialectic. They learn to develop values around a positive sense of self, to better understand others, to take responsibility for their actions, and to see themselves as global citizens who can make a difference by contributing to a more peaceful, just, and sustainable world.

1. Our Initiative and Ideals

Education shapes the life and history of every child and country in the world. Even under the worst circumstances, education gives children more confidence to face the future. We wholly agree with BAN Ki-moon, Secretary-General of the United Nations, that we must place education at the heart of our social, political, and development agendas. The power of education to transform lives is

universal! Education is not only a moral imperative ó it is a good and smart choice. Yet, some 60 million children worldwide are still not even attending school.

We share common ideals at our global values institute: our goal is for every child to attend primary school, progress to secondary school, and on from there to relevant higher education. We want the world’s children to learn the literacy, numeracy, and critical-thinking skills which will help them succeed in life as engaged and productive citizens of the world. Today, we are living in the Information Age ó where constant change has become the standard, and technological innovations occur on a daily basis, while moral and ethical growth and education have been left far behind.

One of today’s greatest challenges for educational institutions is to achieve a balance between their academic curriculum, teaching basic and advanced knowledge content, while at the same time keeping ethics, values, and relationship skills in the equation, with the goal of reaching integrated human development. In private as well as public sectors, there is a need for leaders and employees who will maintain an ethical and humanistic focus, especially when faced with making difficult decisions.

Robert Hartman (1910-1973) was a student and disciple of Edmund Husserl, the father of Phenomenology. In his *opus magnum*, *The Structure of Value*, Dr. Hartman established the foundations for a scientific axiology by means of logic and mathematics, centered on his axiom of value. For the first time in history, a method was established to objectively measure an individual’s capacity to value. Dr. David Mefford expanded on Hartman’s foundations in his dissertation: *The Phenomenology of Man as a Valuing Subject*, and went on to develop the *Axiological Dialectic* as a most effective transformation and coaching process through which any student or individual can achieve a clearer and more balanced and objective understanding of the external world and of themselves.

Many business, financial, and government leaders the world over are guided or misguided according to the level of moral consciousness they have achieved. As Dr. Leon Pomeroy so aptly states in his June blog óBeyond Good and Evil,ó (June 30, 2012) for *Psychology Today*, we need to “upgrade today’s 3R education to the 4R education consisting of reading, writing, arithmetic, and rational moral education grounded in science and not just ideology, tradition, or religion. This amounts to adding the awareness of our axiological FDTs to the learning of ABCs and 123s.”

Morals and ethics are universally normative values, which have been modeled mathematically by the science of value. Axiology, as a scientific frame of reference, identifies three dimensions of value: Intrinsic, Extrinsic, and Systemic, as well as three ways of valuing the world and others or ourselves: Feeling (intuitive or intrinsic valuation), Doing (pragmatic or analytic valuation), and Thinking (linear or logical valuation). Every individual is a Feeler, Doer, and Thinker, although in varying degrees. Most people reach a certain comfort zone in which they tend to overvalue or focus more strongly on one or two value dimensions, while ignoring, or leaving the third in suspension. Although this is stated in very simple terms, our values and our capacity for valuation is socially, educationally, and culturally influenced and conditioned, and it ends up being hard-wired in our minds, while becoming evident in our behaviors, motivations, and attitudes.

To achieve a breakthrough and actualize our initiative, we need to speed up the global movement to achieve quality, relevant, and *humanistic transformative values* in education. By putting values education first, we can help students develop their potential and look forward to a stronger and better global society for everyone. The following saying clarifies how powerfully the

process of education and emotional conditioning influences and shapes the thoughts, the life, and the destiny of every child and country in the world.

*Watch your thoughts, for they become your words;
Watch your words, for they become your deeds;
Watch your deeds, for they become your habits;
Watch your habits, for they become your character;
Watch your character, for it becomes your destiny.*

-anonymous Sanskrit saying

While a great deal of character development happens at home, better results are achieved when schools also promote positive character development in students. Researchers specializing in character development view character as a multi-dimensional aspect of a person's personality. Fortunately, Axiology provides us with a scientific, mathematical frame of reference for objectively teaching values as well as the structure of valuation. As students become more conscious of the process of valuation and practice good value habits, they will tend to internalize these good habits and adopt them as a moral compass for their lives. Aristotle is known for saying that we are what we repeatedly do. Excellence then is not an act, but a habit. Another way to express this is: *praxis makes hexus*, or, practice builds habits. Character and ethical education are essential building blocks to successful students. Knowledge can become worthless without the habits of mind to use it properly.

Educational projects have begun in Mexico and the US, and are in process for several other countries, with the goal of developing global citizens instilled with universally good values and the capacity for ethical decision making at a younger age. The general capabilities that focus on ways of thinking, acting, behaving, and learning to live in harmony with others include critical and creative thinking, ethical behavior, personal and social competence, intercultural understanding, and ways of sharing and expanding this new knowledge through mentoring others.

2. The Importance and Benefits of Values Education

We are dedicated to teaching values, ethics, and leadership programs throughout the world. We work with universities, foundations, and philanthropic organizations to create and deliver programs and tools based on Value Science. We want to help leaders take practical steps to reinforce positive and good values while lowering the level of poverty in their country. Working together we can move toward an interdependent collaborative world of nations throughout the globe.

Our solution is to teach values and ethical principles (with a scientific, logic-based, formal axiology) to students in colleges and universities, as well as in middle and high schools. Providing education courses on ethics and core values insures that future leaders will acquire the knowledge they need for making better decisions, wherever they may live around the world. After these values education programs are established in most countries of our world, we could enjoy a climate of much greater cooperation among all nations. This is only possible when built upon a foundation that supports a formal grounding of values through education that transcends all cultures and national identities.

Education is the primary gateway to learning the skills and values necessary to help students around the globe fulfill their dreams and aspirations. Values education has the power to

transform people and bring shared values to life. People around the world are connected ó more than ever before. In light of global climate change, conflict, and economic turmoil, it seems clear that we will sink or swim together. It is our goal to forge new ways of relating to each other ó as individuals, communities, and countries. *Values education* can help us to cultivate a vision that sees far beyond our immediate interests to the world at large ó it can give us the profound understanding that we are connected as citizens of the global community and that our challenges are intertwined. It will be difficult if not impossible to achieve sustainable development or lasting peace without the knowledge, life skills, and ethical values cultivated through the critical thread that ties together our global hopes and dreams for the future ó *Values education*.

Each nation's human capital is the greatest source of its wealth. We are now living in a knowledge economy. More than at any time in history, the destiny of nations and the well-being of their people now depends on their ability to expand this human capital. Our primary role and initiative at the Institute for Values Education is to ensure quality, relevant and *transformative* education, and training in essential life values and skills for students at every level.

3. History and Methodology

Dr. David Mefford and I were asked to adapt our former book, *Values for Living*, which was written for business consultants, leaders, and general self-development, into a university text on core values and process ethics, and to design a course and syllabus to teach university students the axiologically-based progressive knowledge of how to live a good and ethical life and how to develop better life ósoft skillsö as well as decision-making skills.

In September of 2012, we were invited to Toluca, Mexico, by the Chancellor of the University of the State of Mexico to present the benefits of our ethics and values óLife Trainingö course for higher education. A preliminary pilot project was conducted, first training the professors who were to teach the classes, as well as administering the Student Life Indexâ assessment to their students, both before and after the course, to gauge their progress.

The Student Life Indexâ is a *self-discovery* assessment, available from Axces Solutions (www.axces-solutions.com), and was created as an exercise to show each student where they are now and what and how they value. It also teaches the nature of different values ó from the best to the worst (based on universally accepted educational and family values). The assessment is based on mathematical axiology and measures students' values regarding two worlds in three dimensions: Their external world, consisting of people and relationships, academic tasks and processes, and systems/ideas, and their internal world, consisting of their sense of self-worth (who they are), their identity with and engagement in their academic role as students, and their sense of self-direction in life.

Part 1 of the course teaches students the basic foundations of axiology, and the second part of the course is about process ethics, divided into 26 progressive lessons. The lessons are organized into 4 basic sections of how to achieve greater clarity about yourself and best fulfill your unique potential, according to Dr. Hartman's outline of four óself-rulesö in his autobiography, *Freedom to Live* (pp.111-112). The first section (Socrates) is about *knowing yourself*: what kind of person you are and what strengths and natural potentials you have to work with. The second section (Kierkegaard) is about *choosing yourself*: this means practicing self-acceptance, óI am who I am,ö and that is my starting point ó each student needs to learn how to make the best of it. Section three (Kierkegaard and Pico della Mirandola) is about *creating yourself*: this means being the very best óyouö there could ever be ó be the best person you possibly can! And the fourth section (Jesus)

focuses on *giving yourself*. This encompasses loving yourself and others, being generous with your time and energy, caring and sharing. To this we have added a fifth rule or section: *mentoring others*. Once you have climbed the mountain of self-discovery and achieved the summit, you have a responsibility to give others a helping hand and help them achieve it too in their own unique way. This is similar to the currently popular phrase öpaying it forward,ö which has a powerful and positive influence on students and keeps the chain going and growing.

The impact of these lessons is achieved through a series of exercises that the students practice in real time, whatever culture they may live in; and the results of our preliminary study demonstrate that practice and repetition establishes good or better habits as well as better decision-making and problem solving in all of life's facets. The students learn the difference between good and bad value judgments, and how to best determine what is right from what is wrong. In brief, the course clarifies and strengthens students' consciences, helping them to internalize and develop a öfeelingö for knowing and doing what is right or best. Most university students who were exposed to the course improved in some aspect, and significant improvement was seen in several key areas. A larger and more statistically significant pilot project has been planned in which the professors who will teach this course have been chosen from various disciplines.

We encourage the teachers of our course to utilize their own unique teaching style as well as to contribute additional learning materials that best reflect their culture and the context of their students in order to help raise the students' interest and receptivity. We also know that positive values are often learned through experience, and we encourage faculty, administrators, advisors, and students alike to take advantage of their campus environment and östart something.ö Talk about it, teach it, practice it, and share the experience. Teaching and demonstrating values in the classroom equips students with invaluable life-lessons regardless of their area of study. Creative writing assignments, watching an educational video or movie, a cultural exploration, a discussion of historical events or politics, can incorporate or even revolve around positive values.

4. Course Syllabus

THE G.I.V.E. VALUES EDUCATION COURSE: The benefits of this course in Applied Axiology are many, for students, teachers, and future employers. This is a *life skills* course, which provides students with the logical frame of reference and the tools they need. As complementary texts, we also recommend Dr. Robert S. Hartman's autobiography, *Freedom to Live*, so students can better understand the history underlying value science, and the student workbook written by Leonardo Gomez Navas. For all students ages 13 and up, we also recommend viewing the educational movie, *The First Grader*, which results in a stronger sense of appreciation and gratitude for the educational opportunities they have.

OBJECTIVES:

1. To raise the students' awareness of the world around them and of themselves through the Student Life Index™ assessment, which helps them gain clarity about who they are and who they can become, what their talents are and what they can do, and which path they may want to follow in life to make their best contribution.
2. To emerge from this course better prepared in every dimension of life because the course not only involves gaining new knowledge and insights; it also teaches students in a very interactive way how to apply the ethical axiological principles they learn in real-world, real-life situations, such as *problem-solving skills, managing interpersonal relationships, conflict resolution, basic social and professional skills*, that are not commonly taught, but which will increase their general

mastery of living a õgoodö life (vs. the õgoodsö life), and their employability, once they complete and internalize the core concepts of this course.

3. This course covers the entire formulae ó everything a student needs to start on the positive and ethical path and stay there, barring unforeseen circumstances.

4. This course gives insight, awareness, and understanding, but it is up to the student to take those actions, make the right choices with the right responses and continue to make them *a way of life*.

SECTION 1:

- Introduction and History
- ó What is Axiology (Origin of Value Science)?
- ó What is Value?
- ó The meaning of õgoodö and õgoodnessö
- ó The axiom of value and mathematical foundations
- ó Overview of 3 Kinds of Value:
- ó Overview of 3 Kinds of Valuation:
- ó Putting it together: Two Worlds in 3 Dimensions
- ó Learning to see the world from an axiological perspective
- 2:** How we value what we value (Combining values & valuation).
- ó Rationally and Logically
- ó Actively, Practically & Dynamically
- ó Intuitively and Emotionally
- ó Baseline Student Life Index† review assessment
- ó Lesson: You are unique and irreplaceable
- 3:** The External Dimensions: Systemic Value (knowledge of social organization, respecting the law and authority), Extrinsic Value (treating others fairly and equally ó embracing diversity and being inclusive), Intrinsic Value (respecting the human dignity of all others).
- 4:** The Internal Dimensions: Systemic (planning your future: being disciplined and organized); Extrinsic (productive work and role engagement) and Intrinsic (living your life to the fullest and developing more of your potential).

SECTION 2: 26 Logically Progressive Lessons to reach the summit of *Living the Good Life*.

(Details of this section are too extensive to include in this overview)

5. The Future of Values Education

Educational reform is a priority for many countries, and we believe this reform should stretch beyond teaching all the routine courses. It should extend to helping both teachers and students make better life decisions through developing their soft skills, including how to best treat others, listening and communication skills, how to solve practical problems, respect for authority, self-respect, how to develop more of their potentials, how to be more organized and accountable, how to develop leadership skills, and how to be fully present and engaged in their life roles, among other areas.

There is no other course available that teaches self-understanding, life training, or ósoft skillsö in the same way as our scientific, axiological approach. The entire course is extremely

beneficial to educate better and more effective leaders in educational, business, and economic social roles ó as well as government.

Basic reading and writing, along with the foundation of numbers, are essentially the learning content of the öFirst Grade.ö We see the clear need for a scientific values course to begin as a life training or *life sciences* course ó *as early as possible*, to add on to what students have already learned in elementary school (basic reading, writing, math, history and science). At this point, they would be ready to learn about universal ethical principles, which will require a much simpler version of our current text. We have been working on such a text at a third-grade level, employing the *Suzuki method*.

The Suzuki method has enabled many children to play music to high standards. Substantial numbers of Suzuki-trained students have even become highly acclaimed professional musicians. However, the training of professionals is not the main aim: the emphasis throughout is on the development of the *whole child*. The Suzuki method is based on the principles that all children possess ability, and this ability can be developed and enhanced through a nurturing environment. All children learn to speak their own language with relative ease, and if the same natural learning process is applied to teaching other skills, these can be acquired just as successfully. Dr. Suzuki referred to the process as the *Mother Tongue Method* and to the whole system of pedagogy as *Talent Education*. He always said that his wish was to foster the human qualities in a child, and at every opportunity, he called on politicians, teachers, and parents to ensure that the full potential of every child is developed.

Values education of younger elementary school students needs to be changed from mere instruction to education in the *real* sense of the word, ö*educare*,ö which means to draw out a student's potential, like drawing water out of a well. We know children have the innate ability to learn good values. Third-graders can learn what is ögood,ö övaluable,ö öright,ö öworthwhile,ö and öethicalö in life through daily use and practice, and at a later educational stage they can learn to understand the theory underlying the principles of value science. This same approach is successfully being employed by the Rosetta Stone and the Pimsleur methods today, to help adults learn a foreign language quickly.

The life science course helps students learn how to be *good persons*, as well as good contributors to society - advancing and strengthening every nation's social justice, economic progress, and government policy.

6. Values Education Affiliates and Partners

This article would be incomplete without giving proper credit to our associates and partners who have contributed to this effort. We want to thank everyone who has helped us launch this global project to date and express our heartfelt appreciation to our contributors and supporters.

Our long-term history and relationship with fellow axiologists Antonio Hernandez, Lino Teja, and Ignacio Gutierrez was instrumental in launching this educational project at the University of the State of Mexico in Toluca. We thank Antonio and öNachoö for raising receptivity to our course at the UAEM, and for hosting us during our stay in September of 2012. We thank them for scheduling countless meetings, for allowing us the use of their tremendous on-line learning center, for scheduling television interviews, for promoting a public lecture about the course at the Grand Hall, and for providing us with outstanding translators and safe transportation. Our hearts are grateful to Lino Teja for his intense and continuing dedication and loyalty to this project, as well as for his leadership, insight, translations, and contagious enthusiasm in helping us organize and

train the professors; and for the countless hours he spent in his persistent efforts to help them understand axiology well enough to teach it.

We also thank our good friend and associate of several decades, Leonardo Gomez Navas, who authors textbooks for McGraw Hill Publishing, for designing a student workbook to go along with our university text that contains relevant readings, case studies, and exercises in ethics and life values. We look forward to providing future teachers of our course with his excellent text to help guide their classes and give their students a clearer and better understanding of value science. Together, we are also working on a simpler student workbook with exercises appropriate for middle and high school. We recently conducted the first beta-test of a simplified version, which we will finalize over the next few months.

We greatly appreciate the efforts of our close affiliate and educational ambassador to Latin America, Abel Jimenez Martinez, for translating much of our material, including the Student Life Index, into Spanish. Abel recently made a presentation to the Teachers Union and the Parents Union of Mexico, with emphasis on middle and high school values education, and was very well received. Abel will be implementing this course, under the auspices of GIVE, in Monterrey in the near future.

Finally, we are deeply grateful for our new Kenyan friends, Oliver Litondo and his brilliant and gracious wife, Beldina. Oliver is the award-winning star of the film by Justin Chadwick, *The First Grader*, released by National Geographic Entertainment in 2010. It is the heart-warming and inspiring true story of one man's fight for what he believes is his right to overcome the burdens of his past, and a triumphant testimony to the transforming force of education. The impact of this movie on its viewers is to instill in them a deep and lasting appreciation for whatever education they have had. The teachers and students who portray the real-life people of Kenya overflow with enthusiasm for learning. Oliver and Beldina are passionately devoted to their quest for expanding educational opportunities to the remote areas of African countries. *The First Grader* movie has become so popular and had such a powerful impact in Kenya that today many grandmothers and grandfathers are attending primary school with their grandchildren to learn how to read and write together. This presents a unique opportunity to share their heritage and history with the younger generation and to help each to develop greater knowledge of and appreciation for linking their past with their present and future in light of differing generational frames of reference.

Both Mexico and Kenya are promising countries for this fruitful project, which is focused on generating better solutions for education, social justice, and government policy.

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TO BE OR NOT TO BE: THE SELF, CONTINUED: “NO MAN IS AN ISLAND”

Leon Pomeroy

LEON POMEROY, Ph.D., is a graduate of the University of Massachusetts at Amherst (Biology, B.A., M.A.), and the University of Texas at Austin (Psychology, Ph.D.). His doctoral dissertation was unique because it involved the resources of several academic departments on the campus of UT Austin (i.e., Clayton Foundation Biochemical Institute *with office and laboratory*; electrical and biomedical engineering *with a second office and laboratory*; psychology, and computer sciences). This background served him well when he joined the Robert S. Hartman Institute (RSI) where he found himself among philosophers, business entrepreneurs, professors, and some with military backgrounds. His personal study of values began with his youthful study of *General Semantics* followed by an undergraduate *Sociology of Knowledge* course, followed by a post-doctoral internship at the Albert Ellis Institute in Manhattan. Those were days marked by psychology's shift from the ömedical modelö of psychoanalysis to the öeducational modelö of more rigorous learning theory. They were also days when Abraham Maslow speculated that the concept of value might be obsolete because of its surplus meaning; even though he began to see hope in the work of philosopher Robert S. Hartman. The lack of a clinically relevant methodology for the study of values in the field of psychology didn't stop Professor Milton Rokeach from proclaiming that the concept of value is at once the most important, least studied, and least understood concept in all of psychology and the social sciences. Pomeroy faced this academic confusion and ambivalence in his profession, concluded the studies by Allport, Kohlberg and Rokeach lacked clinical relevance, and looks back on those years as his *professional wilderness years*. They lasted until *serendipity struck twice*: the first occurred when his mentor Dr. Albert Ellis introduced him to Hartman's contributions in 1973. Because there was no supporting empirical evidence, Professor Pomeroy lost interest! The second occurred when Professor Pomeroy met Mexican psychiatrist Dr. Salvador Roquet, M.D. at a seminar on Cape Cod. It was there he took the HVP and was sufficiently impressed to incorporate this value profiling methodology in his Manhattan practice. Doing so, Prof., Dr. Pomeroy escaped his öprofessional wilderness yearsö by discovering in the öphilosophyö of Prof. Hartman what he had been looking for in his chosen profession of öpsychology.ö

Abstract

In previous blogs for *Psychology Today* I've attempted to introduce axiological science to the wider-world, and in the simplest possible terms. This is a considerable challenge; as is my effort to introduce the topic of axiological psychology, one of the foremost applications of axiological science. My discussion of öThe Selfö begins with the blog entitled öDo You Love Yourself?ö You might want to read it before continuing with öNo Man is an Island:ö

<http://www.psychologytoday.com/blog/beyond-good-and-evil/201307/the-self>

Introduction

Some three-hundred years ago William Shakespeare gave us Hamlet. Under stress, Hamlet utters the now famous line “to be or not to be?” I offer a part of this soliloquy by way of introducing my continued discussion of The Self:

To be, or not to be, that is the question.

To live or die, and maybe dream;

But, there’s the problem!

In the sleep of death what dreams will come.

This gives pause.

The dread of that undiscovered world after death,

From which no traveler returns, puzzles the will,

And makes us bear our existence; any existence,

Rather than go to a world unknown to us.

And so our conscience makes cowards of us all in our journey of being and becoming.

Related Articles

What does science have to say about the self? Not much! Clinical psychology is a philosophical discipline in search of science, and what’s needed is a scientific recognition of values in a world of facts. My profession needs two systems of science: 1. Old natural science of facts. 2. New axiological science of values. This is easier said than done. The ancients dreamed about it. They wanted to understand the moral laws within much as they had begun discovering the natural laws of heaven and earth. The dream proved beyond their reach until American philosopher Robert S. Hartman, inspired by British philosopher G. E. Moore, discovered an operational definition of “good.” This caught my attention in 1973 while an Intern at the Ellis Institute in Manhattan, and then again in 1979 when I decided to examine it using the best tests and measures of my profession. It also caught the attention of those who nominated Hartman for the Nobel Prize before he died in 1973.

My research, between 1979 and 2005, as time and funding from my private practice allowed, succeeded in validating Hartman’s theory of value, and these data transformed Hartman’s theory into a science of values. Since morals are normative values, the publication of The New Science of Axiological Psychology in 2005 also resulted in the science of morals on which to build tomorrow’s moral education today!

In some respects, my relationship to Robert Hartman is not unlike the relationship that existed between T. H. Huxley (1825-1895) and Charles Darwin (1809-1882) in the 19th century.

I am no Huxley, but I believe that Hartman's contributions to psychology are just as important as Darwin's contributions were to biology. Huxley vigorously defended Darwin's theory of evolution, and he became known as "Darwin's Bulldog." I would have no objections to being called "Hartman's Bulldog."

No Man is an Island

No discussion of the singularity of the individual-self of identity and personhood (i.e., the idiothetic self) is complete without considering the implications of John Donne's (1572-1631) poetic observation that "No man is an island entire of itself"; any man's death diminishes me, because I am involved in mankind. And therefore never send to know for whom the bell tolls; it tolls for thee.

The individual-self of identity and personhood, be it tribal or modern, exists in a social context involving significant others and the mysterious nomothetic-self or collective-self emerging as an expression of many selves. It is sometimes called zeitgeist, spirit-of-the-times, climate-of-opinion or weltanschauung.

In the past this social context was some sort of sovereign, tribal organization. The oral traditions, rituals, beliefs, symbols, art, and myth created a nomothetic or collective-self that influenced idiothetic or individual selves. It benefited the tribe in positive ways, including a defense against enemies, some of which were European colonial powers. During World War II both Germans and Americans experienced the eruption of highly defined and focused mass-minds giving rise to nomothetic or collective selves.

In this installment of our tour of self-horizons, I will consider the self from the perspective of a practicing clinical psychologist and scientist (i.e., axiologist) specializing in the study of values (i.e., axiology). This approach focuses on three underlying cognitive dimensions dedicated to values and valuations called Feeler, Doer and Thinker dimensions of value. They constitute the sub-selves, or building blocks, of the self of identity and personhood on the path of being and becoming.

Each of these dimensions of self is shaped and defined by four variables having to do with degrees of sensitivity, balance, priority and plasticity. These parameters vary over time, and in different situations. It is the sensitivity (i.e., empathy) of the Feeler-Self, communicating with the resources of the Doer and Thinker selves, that controls the construction of the idiothetic self of identity and personhood—but there is more to the story, as John Donne would have us believe.

Dimensions of the Self

First, background: Humankind has lived with one system of science arising out of the European Renaissance and the Age of Reason, which also gave birth to the American Experiment of governance. Natural science reached for values over the years, but never touched them. This left values to philosophy and the world's religions. What followed is the asymmetric evolution of natural science, without moral science checks and balance. This resulted in a growing divide between science and religion as well as science and the humanities, as reflected in the writings of C. P. Snow. This accident of history gave mortals medicine, creature comforts, and the moral hazards of genetic engineering and weapons of mass destruction. Contemplating these awesome weapons, a well-respected General once observed that mortals, and spirit-of-the-times, are "moral

pygmies.ö Evidence supporting this harsh estimate of civilization and its discontents is found in the fact that human beings are more capable of organizing evil than good in the world.

One remedy for what ails civilization and its discontents is the culture-free, religiously-neutral, science-based, moral education of youth while learning their ABCs and 123s. This effort would also produce clues to knowledge of the self. Focusing on the science of values and valuations makes sense because we don't see with our eyes, we see with values. We are prisoners of those values. At the risk of corrective-emphasis becoming over-emphasis, I'd add that we don't have values we are our values. As for the royal road to a better world and knowledge of the self, I suspect it will be paved with a scientific understanding of values and morals; which I have always regarded as the öholy grailö of psychologyí even as psychology has remained largely silent on the subject. (Academic studies by Allport, Rokeach and Kohlberg are exceptions, but have little clinical relevance for me).

I regard my unproductive years in search of a deeper clinical understanding of values as my öprofessional wilderness years.ö They ended abruptly with my discovery of philosopher Robert S. Hartman's theory of value and his amazing test of the General Capacity to Value. The test is The Hartman Value Profile (HVP). It provides useful öpsychological informationö without öpsychological testingö because values are the foundation of everything psychological. Why measure ösurface behaviorö when you can measure the öorigins of behaviorö found in how a person organizes values and valuations, giving rise to self, belief systems, thought-styles, emotions, motivations, and all behavior. The brain plays a role, but the mind is the master puppeteer pulling the strings of the puppet brain even though the brain has a few strings of its own!

The idiothetic, individual self is five dimensional: 1. Feeler-sub-Self, 2. Doer-sub-Self, 3. Thinker-sub-Self, 4. Mirror Neurons, and 5. nomothetic Collective-Self. We would choke on the proliferation of values if they were not organized in some way. Nature and nurture do this for us and Hartman's theory correctly predicted how values are organized around three cognitive dimensions dedicated to structural values and functional valuations.

The dynamism of co-play and counter-play among the Feeler (F), Doer (D), and Thinker (T) dimensions of Self contribute to the construction of Self. They vary as to sensitivity, balance, priority and plasticity in giving rise to the Self, belief systems, ideologies, emotions, motivations. They are involved with the maintenance of the sense of the adequate, competent, familiar self (i.e., steady-state psychostasis, analogous to biological homeostasis), without which existential anxiety, even panic, ensues; depending on one's defenses! The Feeler-sub-Self is the nucleus of the developing self of identity and personhood (i.e., the idiothetic self) which is influenced by the collective-self of the mass mind, resulting from the coming together of many living selves, and deceased legacy selves...conveyed by history and civilization.

I hope to give axiological meaning to the expression öno man is an island,ö by introducing the concept of the mass-mind influencing individual minds at the level of Feeler, Doer and Thinker sub-selves. From this interaction arises consciousness, degrees of free-will, (i.e., given free-will and earned free-will), and the capacity to contemplate the ambiguities of öto be or not to be,ö and öno man is an island.ö Do you suppose öman's best friend,ö or even the öcat,ö can do this?

The nomothetic self of the mass-mind (i.e., spirit-of-the-times) represents an emerging, average world-view (of the collective, mass-mind) capable of influencing the development and destiny of individual, idiothetic selves like you and me. (...suggesting the metaphor of individual selves öswimmingö in a ösea of other selvesö). The term öidiotheticö refers to the uniqueness and individuality of the individual-self. The term önomotheticö refers to the collective-self born of the

spirit-of-the-times or zeitgeist. The following discussion is an attempt to explain what I mean, and provide an axiological interpretation of ño man is an island.ö

Germany

Between 1920 and 1945 the Nazi slogan was, öOne People, One Nation, One Leader.ö This propaganda gave birth to a climate-of-opinion or mass-mind and collective-self few managed to escape. This nomothetic self, influencing idiothetic selves, was propaganda-induced and designed to advance Hitler's war.

Egypt

Shibley Telhami, writing in the August 18, 2013 edition of The Washington Post, comments on the dark cloud hovering over Egypt. It is one that involves a large scale identity crisis. Progressive Egyptians are struggling to integrate their secular-self and religious-self. Conservative Egyptians are happy with their religious-self and its harmonious relation with the collective religious-self. Since Egyptians don't identify with the nation-state, the only common ground between progressives and conservatives is religion which each group approaches differently. Reflecting the tension that exists is the fact that 87% of progressives support sharia law if adjusted to reflect modern times; while 83% of conservatives want no accommodation with modernity.

Summarizing: The progressive idiothetic self, composed of secular and religious identities, is the source of cognitive dissonance and existential tension. Progressives must deal with this and the tensions of having to relate to conservatives and a conservative zeitgeist. Conservatives are threatened by the öalien progressivesö among them because the conservative idiothetic self is a purely religious-self in harmony with the collective, nomothetic religious self of the masses. The picture is grim and this is always the case whenever religion is involved in the existential struggle of the self of identity and personhood. It can be argued that it has fallen to the military to protect them from themselves, keep the peace, and buy the time needed for Egyptians to ñmatureö (i.e., come to terms with identity and modernity issues) enough to negotiate a form of representative governance with checks and balances.

America

The context of the individualistic American-self is that of a pluralistic society of many ethnic, cultural and religious backgrounds. This diversity has tended to suppress the formation of a well-defined, collective, nomothetic-self capable of influencing the individual idiothetic self. The era of World War II is an exception: in response to the surprise Japanese attack on Pearl Harbor there erupted spontaneously a mass-mind with a nomothetic self for all the right reasons. It rivaled in focus and definition the World War II German experience when Nazi propaganda forged a mass-mind with a strong nomothetic self for all the wrong reasons.

The existence of these mass-minds (i.e., macro-minds) was strong but brief. Less defined mass-minds (i.e., micro-minds) come and go, such as those associated with the Freedom Marches, Stock Market swings, financial bubbles, Great Recession, and isolated cases of mass hysteria responding to delusional threats. The Middle European experience of Germany has left it with an elevated base-line, cultural pseudo-paranoia which can morph into a zeitgeist capable of giving

birth to a relatively unified mass-mind and collective-self. The historic isolation of North America has left this population with a lower threshold of cultural pseudo-paranoia; but this is changing with terrorism and the echo chamber of cyberspace and social networking. In today's world the people of all nations are beginning to experience what the "Middle Europeans" of Germany have experienced throughout their geopolitical history. This trend promises to increase the probability of collective-selves influencing individual selves in all nations of the world.

This trend may also produce a counter-force among "new humans" in the 21st century, taking the form of "citizen of the world" or "the internationalist." This is something the French philosopher Voltaire (1694-1778) would approve of judging from his many discussions with Frederick the Great at Potsdam. Voltaire saw himself as the first "citizen-of-the-world." In the present context, this trend might blunt the rise of cultural pseudo-paranoia around the world and defuse the rise of mass-minds bent on organizing evil instead of good in the world.

Conclusion

There is more to the self involving bioaxiology, psychoaxiology, and transcendental (i.e., spiritual) considerations, which I leave for another day. Meanwhile, no one knows where interacting individual and collective selves will take us in the 21st century...as we sail in our leaky boats on what promises to be rough seas! The transient, well-defined, German and American mass-minds (i.e., collective, nomothetic-selves) of World War II came together for the wrong and right reasons and this ought to put the "moral pygmies" among us on notice concerning the potential moral hazards and mortal dangers associated with interacting idiothetic and nomothetic selves...in a world without formal moral education. Influences of the mass-mind are recorded in the pages of history and include the behavior of the "hooded order" of the Ku Klux Klan (KKK), mass hysteria resulting in the lynching of innocents in the deep South following the American Civil War, the Salem Witch Trials in New England, the behavior of the stock market, the Great Depression of 1929, and the Great Recession of 2008.

The asymmetric evolution of natural science, without the restraint of moral science and moral education, plus the ideological vulnerability and fragility of the human mind (amplified by the echo chamber of television channels and networking in cyberspace), remains an undefined psychosocial risk in need of study and monitoring. There will always be charismatic demigods, efficient at organizing evil, who will try to take advantage of hysteria induced mass-minds with their collective identities and selves. We are living in a unique historical period of globalization and rapid communication. The lesson of history (historiography) isn't enough! The moral education of the young when learning their ABCs and 123s is also needed. This will help put an end to talk about individual and collective "moral pygmies," and the risk they pose.

THE GLOBALIZATION OF VALUE THEORY MATHEMATICS

Robert L. Short

ROBERT SHORT resides in New Tazewell, Tennessee and has dedicated 30 years to the research of the Asymptotic Model and the development of the Qaaba Software. He is the founder of McQube, Inc., and the Ark Earth Foundation. He has had training in computer science, mechanical drafting and design, solar energy, robotics, and paralegal services. In addition, he is an autodidact with various field experiences involving a wide range of activities. Inspired by descriptions within ancient Sumerian records of the mythical ME and the utilization of a phenomenology and mathematics, he created an Asymptotic Spatiotemporal Tesseract Tetracomb, referred to as the Asymptotic Model. The Asymptotic Model was used to fashion a software program that he titled, öQaaba,ö meaning öcubeö in Aramaic. Robert used the Asymptotic Model in the design of a computer software technology to be marketed as a Web 3 and Web 4 Semantic Intelligent Agent and MicroApp Framework Wizard. Robert promotes a Web 3 progression to include Axiological Psychology as the value theory component in the development of an Innovative System for the knowledge economy. To achieve the progression to Web 3, Robert promotes Axiological certifications for ICT and business curriculums within all higher education institutions throughout the world. Robert promotes a Web 4 progression for the advancement of the Internet using Artificial Intelligence and Avatars.

Abstract

The Globalization of Value Theory Mathematics is one of the most exciting junctures in the history of the human evolution. In this article, I examine Asymptotic Modeling as it relates to Phenomenology and Axiology. This article also examine the mathematics of *Asymptotic Analysis* as discussed by Sam Howison in his book, *Practical Applied Mathematics* (2005) and the role Axiology plays in constructing the *Asymptotic Model* as discussed in Dr. David Mefford's journal article, öOrigins of Formal Axiology in Phenomenology and Implications for a Revised Axiological System.ö I will refresh the understanding of the quantum mechanics of Axiological Artificial Intelligence that I presented at Hartman Institute Conferences in Oct. 2006 and Oct 2010. The role that *Asymptotic Modeling* plays in Axiological Artificial Intelligence is defined. I will explore, in mathematical notation and pseudo code expression the value theory integration of Dr. Hartman's three (3) dimensional modeling in *The Structure of Value* (1967), as it is in a multi-dimensional environment cognitively subjected to *Asymptotic Influences*. The discussion concludes that Axiological Artificial Intelligence will encourage civil engagement when involving governance and economic issues, and how it will become commonplace in our progression into the 21st century.

1. Influences of Husserl, Hartman, and Mefford

Artificial Intelligence presents great potential for all enthusiasts, researchers, and philosophical explorers who feel challenged to navigate the finite within the infinite space of the human mind. One such explorer was German Philosopher Edmund Husserl (April 8, 1859 ö April 26, 1938). In *The Development of Husserl's Thought*, Theodorus Boer elaborated on Husserl's assertion that in

order to study the structure of consciousness, one has to distinguish between the act of consciousness and the phenomena to which it is directed as objects and as intended. Husserl asserted that knowledge would only be possible by bracketing all assumptions of the existence of an external world. Boer said that Husserl referred to this procedure as *epoché*, the ancient Greek term that describes putting the mind into neutral, where all judgments about the existence of the external world are suspended. A century later, we may revisit Boer's translations and thoughts on Husserl's conceptualization. Through this exploration and others, we can gain a greater understanding of the mechanics of the human mind.

Husserl's broadened conceptualization of the human mind also influenced another pioneer, his student, Robert S. Hartman (January 27, 1910 – September 20, 1973). In *The Structure of Value*, Hartman presents axiology as a means to explore logic and mathematics centered on his axiom of value. Hartman described his axiom of value as generating systemic, extrinsic, and intrinsic value as concept fulfillment. Influenced by Hartman, David Mefford continued to expand the foundational work of his professor in developing the *valuation* side of axiology.

David Mefford points out that the value sets of Axiology may be used in *Asymptotic Modeling*. As such, systemic, extrinsic, and intrinsic values are subjected to quantum string logic (Mefford 2010, 70). Mefford ascertains that Axiology is applicable to *Asymptotic Modeling* when defining *constructs* as in the systemic dimension, *catalogues* as in the extrinsic dimension, and *containers* as in the intrinsic dimension. In his dissertation *The Phenomenology of Man as a Valuing Subject*, (1989), Mefford framed the need for teaching axiological value science and the knowledge of good (through the stages of valuation) in all higher education institutions.

2. Asymptotic and Axiological Primer

Understanding all the components of *Asymptotic Modeling* is essential for discussing and applying concepts to *Asymptotic Analysis* as it relates to Phenomenology and Axiology. To begin, consciousness must grasp all the complexities of *Asymptotic Modeling* and how it applies to *Axiological Psychology*. *Asymptotic Modeling* provides a theoretical and visual object that may be constructed and used to convey how human interoperability works in a machine reasoning environment.

Sam Howison's book, *Practical Applied Mathematics*, discusses asymptotic theory and practice as well as mathematical modeling. Howison draws from an exhaustive variety of mathematical processes to explain how mathematics can be intelligently applied within specific contexts to a wide range of uses. I will be drawing from Mr. Howison's formalities in asymptotics and modeling principles to better create a foundation for *Asymptotic Modeling*. The order of growth to mechanize the function $f(n)$ is used to establish a continuum and set the limit of the expansion. Consider that the conditions for an *Asymptotic Analysis* occurs as presented in the function, $f(n)=n^2+3n$, and when it is said that n^2 becomes larger than $3n$, $3n$ becomes less significant. Therefore, the function of $f(n)$ is equivalent to n^2 as $n \rightarrow \infty$ and written as $f(n) \sim n^2$. Compiling the essential components that make up the *Asymptotic Analysis* model begins with the *rate of expansion*. As such, the *Asymptotic Expansion* is defined by the *Asymptotic Scale*, by which the *Asymptotic Model* is constructed. The *Asymptotic Scale* of $f(n) \sim n^2$ is used to define the *Asymptotic Expansion*, which is a means to value assess all elements in the expansion as they emerge to fully define *systemic value*. The function $f(n)$ synchronizes the *Asymptotic Framework* and *Asymptotic Model* architecture. For example:

$$f \sim g_1$$

$$f \sim g_1 + g_2$$

$$f \sim g_1 + \dots + g_n$$

Whereas n , is the termination sequence that ends the *Asymptotic Scale* by a simple fixed prime number, and/or a more complex occurrence of some other programmatically generated condition. The termination sequence is used to set the *Asymptotic Scale*, thus limiting the growth of the *Asymptotic Expansion*. Under such a termination sequence, we may consider the function $f(n) \sim n^2$ as a means to propagate the *Asymptotic Framework* using systemic, extrinsic, and intrinsic value as an *Asymptotic Scale* by $n=3$; and thus, n^2 subsequently sets the *Asymptotic Expansion* to 9. This is to assure that the *Asymptotic Framework* is structurally synchronized to the construct of the *Asymptotic Model*. In the above function of $f(n)$ sets, the *Asymptotic Scale* as $n=3$ and g cardinally would represent the systemic, extrinsic, and intrinsic extensional properties as they are sequentially depicted.

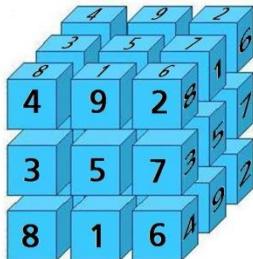
The function $f(n)$ provides a more accurate and reliable mathematically defined architecture to better order growth. Using this extrapolation of *Asymptotic Analysis* as your primer, the *Asymptotic Expansion* sometimes, may result in becoming very large. Under the exemplified *Asymptotic Scale*, the function $f(n)$ also defines the *Asymptotic Trajectory* which encompasses the intent depicted within the axiological properties of function as $f \sim \{g1\}, \{g2\}, \{g3\}, \{g1, g2\}, \{g1, g3\}, \{g2, g3\}, \{g1, g2, g3\}$. This is to say that the *Asymptotic Framework* and the *Asymptotic Model* are structured to mutually function using the properties defined by the *Asymptotic Trajectory*. Thus, programmatically, the properties of the *Asymptotic Trajectory* would be applied to queries as a means to stroke the extrapolation of knowledge using the systemic, extrinsic, and intrinsic value sets from stored data.

In this example of function $f(n) \sim n^2$, we may begin to explore the mathematics used to construct the *Asymptotic Model*. The *Asymptotic Model* can be defined spatially as *cubical*, *hyper-cubical*, or through super-symmetry modeling - *asymptotic*. A generalization of the cube is that when the dimensions are greater than three, this is referred to as a *hypercube*. In mathematics, a *hypercube* is the n -dimensional generalization of squares, cubes, and tesseracts. In geometry, the *hypercube* begins to form as a four dimensional analog of a *cube*, and this process is referred to as ötessellation.ö An *Asymptotic Tessellation* provides us with a theoretical grid of six (6) sided plane of references using mathematics. Therefore, to conceptualize an *Asymptotic Tetracomb* using the *Asymptotic Scale*, when $n = 3$ and n is cubed we would realize 27-partitions of the systemic. The following image shows a tessellation of 27-partitioned sectors defined by 162 planes within a spatial environment:



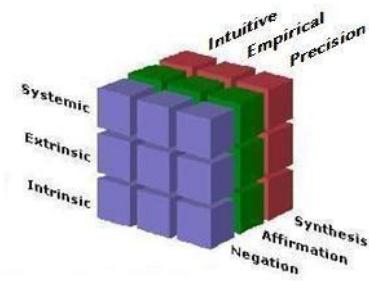
In this visual example, the *Asymptotic Model* is understood to be theoretical and have 27-partitioned fields of influence. The *Asymptotic Tesseract Tetracomb* is created using number-set sums, and these number-set sums are used as a mathematical checksum that assures the existence of a differentiated continuum. In this example, ordinally positioned numbers, have the sum equal to the numbers of each pillar, along any axis, as well as the main space diagonals, when added

together. To obtain the number, the equation $\Sigma = \frac{\Sigma(\Sigma^3 \Sigma)}{\Sigma}$ returns the sum value which reveals a mathematical phenomenology using the *Asymptotic Scale*, $n=3$. In this example, M results with the number-set checksum of 15 when $n=3$. The following image illustrates a spatial structure, that exist by using inlaid numbers sets that mathematically define a given partitioned area, as if it would be constructed using planes and surfaces.



The *Asymptotic Model* presented has the *Asymptotic Scale* set to $n=3$ and therefore, the structure of the *Asymptotic Tesseract Tetracomb* is applicable to the *Asymptotic Framework* using systemic, extrinsic, and intrinsic properties. In the image on the right, we have added the nine (9) observation points that define the *Asymptotic Expansion* and thus, creating the *Asymptotic Background* for the *Asymptotic Model*. In physics, this background is referred to as the *Landscape*.

The *Asymptotic Framework* provides the *Landscape* by using ontology to target the Axiological valuation, which is assessed as it is subjected to *Asymptotic Influences*. The *Asymptotic Influences* are captured in the properties defined by the *Asymptotic Background*. The following table lists the *Asymptotic Influences* as they are axiologically defined:



Asymptotic Framework			
Asymptotic Expansion	Persistent Properties		
Quantum Mechanics	(Event)	(Event Horizon)	
Theoretical Physics	(Properties)		(Space and Time)
Asymptotic Influences (Knowledge Value)	Content	Domain	Exposition
Asymptotic Expansion ₁ (Systemic Intransigent)	Systemic (Constructs)	Intransigent (Intuition)	(Negation)
	Systemic (Constructs)	Intransigent (Intuition)	(Affirmation)
	Systemic (Constructs)	Intransigent (Intuition)	(Synthesis)
Asymptotic Expansion ₂ (Systemic Inferent)	Systemic (Constructs)	Inferent (Empirical)	(Negation)
	Systemic (Constructs)	Inferent (Empirical)	(Affirmation)
	Systemic (Constructs)	Inferent (Empirical)	(Synthesis)

Asymptotic Expansion₃ (Systemic Referent)	Systemic (Constructs)	Referent (Precision)	(Negation)
	Systemic (Constructs)	Referent (Precision)	(Affirmation)
	Systemic (Constructs)	Referent (Precision)	(Synthesis)
Asymptotic Expansion₄ (Extrinsic Intransigent)	Extrinsic (Catalogues)	Intransigent (Intuition)	(Negation)
	Extrinsic (Catalogues)	Intransigent (Intuition)	(Affirmation)
	Extrinsic (Catalogues)	Intransigent (Intuition)	(Synthesis)
Asymptotic Expansion₅ (Extrinsic Inferent)	Extrinsic (Catalogues)	Inferent (Empirical)	(Negation)
	Extrinsic (Catalogues)	Inferent (Empirical)	(Affirmation)
	Extrinsic (Catalogues)	Inferent (Empirical)	(Synthesis)
Asymptotic Expansion₆ (Extrinsic Referent)	Extrinsic (Catalogues)	Referent (Precision)	(Negation)
	Extrinsic (Catalogues)	Referent (Precision)	(Affirmation)
	Extrinsic (Catalogues)	Referent (Precision)	(Synthesis)
Asymptotic Expansion₇ (Intrinsic Intransigent)	Intrinsic (Containers)	Intransigent (Intuition)	(Negation)
	Intrinsic (Containers)	Intransigent (Intuition)	(Affirmation)
	Intrinsic (Containers)	Intransigent (Intuition)	(Synthesis)
Asymptotic Expansion₈ (Intrinsic Inferent)	Intrinsic (Containers)	Inferent (Empirical)	(Negation)
	Intrinsic (Containers)	Inferent (Empirical)	(Affirmation)
	Intrinsic (Containers)	Inferent (Empirical)	(Synthesis)
Asymptotic Expansion₉ (Intrinsic Referent)	Intrinsic (Containers)	Referent (Precision)	(Negation)
	Intrinsic (Containers)	Referent (Precision)	(Affirmation)
	Intrinsic (Containers)	Referent (Precision)	(Synthesis)

3. Asymptotic Modeling the Science of Sciences

The exploration of Husserl's original vision discussed by Hartman (1967), the *science of sciences* contained the possibility of creating the science of *formal axiology*. Hartman concluded that Husserl's vision of the *science of sciences* would include other sciences as well, including a formal axiology. In this exploration, we have experienced the convergence of the Axiological value sets with *Asymptotic Modeling*. The convergence expands upon Hartman's 3-dimensional perspective by including the *event horizon*. In theoretical physics, the *event horizon* is referred to as *space* and *time*. Therefore, to examine another potential science would be an *Asymptotic Axiology* that may be easily illustrated as quantum field theory.

Relative to theoretical physics, the construct of *Asymptotic Modeling* denotes a theoretical framework for constructing a quantum mechanical model used in the quantum field theory. Quantum field theory provides a theoretical framework or standard model for constructing quantum mechanical models of subatomic particles. In *Quantum Field Theory*, Mark Srednicki described quantum mechanics as a theory of abstract operators that act on an abstract state space, where the state space represents the possible states of the system under study. When applying the *Asymptotic Model* as the construct for a quantum mechanical system, the 27-partitions limit the theoretical spaces, whereas subatomic particles are influenced by other particles in the field. Theoretically, *Asymptotic Modeling* would benefit quantum field theory by better understanding the influences of the states that obey the laws of quantum mechanics.

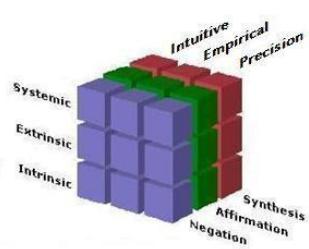
Asymptotic Modeling provisions the limiting of behavior used with quantum mechanical systems to theorize a fixed number of particles that have a small number of degrees of freedom. The standard model is also used in particle physics to support a theory concerning weak and strong nuclear interactions. The standard model fails to provide a complete understanding of the fundamental interactions and makes certain simplifying assumptions about gravitational influences. Therefore, one would consider Husserl's vision of the *science of sciences* to suggest that *Asymptotic Modeling* would incorporate the full theory of gravitation concerning weak and strong nuclear forces and become recognized as the standard model.

We have learned that the *Asymptotic Framework* is used to define the model background and how influences are modeled using axiology. In particle physics, relative to *Asymptotic Modeling*, the influences being valued are referred to as elementary *bosons*. The Hamiltonian formulation of quantum mechanics formalizes the degrees of freedom in a space of multiple identical-particle states. Hamiltonian mechanics was first formulated by William Rowan Hamilton in 1833 as classical system which is described by a set of canonical coordinates where all components are a frame of reference.

Elementary bosons are force carriers that function as the 'glue' holding matter together (Srednicki, 2007). Axiology forms a perfect symmetric framework for constructing the *Asymptotic Model*, and bosons form perfectly symmetric quantum states. In this model, the systemic, extrinsic, and intrinsic values define the boson states used to construct the *Asymptotic Framework*. The *Asymptotic Model* would provide a geospatially defined environment to gauge gravitational interactions as field operators when subjected to ambient or synthesized *Asymptotic Influences* ó in particular, the exploration of the *Asymptotic Influences* used to gauge the forces of a photon. A photon is an elementary particle and the carrier for the electromagnetic force. This makes quantum mechanics the best method to gauge photon properties described as waves and/or particles.

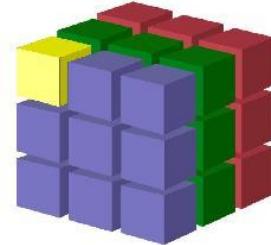
4. Axiological Artificial Intelligence and the Intelligent Agent

The definition provided for Axiological Artificial Intelligence is greatly aided by images, figures, and examples. To reduce complexity, please refer to such aids wherever provided. It is important to understand the anatomy of *Asymptotic Modeling*, as it will prove to be beneficial when discussing Axiological Artificial Intelligence or the software referred to as an *intelligent agent*. The *intelligent agent* being discussed was created using the sample *Asymptotic Model* theorized in this article. The *intelligent agent* is the engine that animates the framework. The *intelligent agent* assures that all objects are mechanized cognitively. Such frameworks are discussed in the *W3C Semantic Web Activity* document produced by the World Wide Web Consortium as the next generation in web development.



The *Asymptotic Model* on the left is propositioning to illustrate the functionality of subjective cognition. When applying the *Asymptotic Model* to Professor Husserl's conceptualization, the structure is not background independent, but inertly dependent on an *Asymptotic Background*, which is referred to as the *Axiological Landscape*. An *Axiological Landscape* is a sophisticated use of applying meaning using Axiology and ontology. Axiological expressions are declarative and therefore may support an unlimited array of uses. Regardless

of the *Asymptotic Background* of any given *Asymptotic Model*, all *Content Aware Objects* are disseminated intelligently and differentiated elementally by the *Asymptotic Influences* subjected as they are subjected. The illustration on the right presents the *Asymptotic Influence* under focus in its star position. In the star position, the *Asymptotic Influence* is placed on the *Content Aware Object* as *systemic*, *intuitive* (*intransigent*), and *negation*.



5. Axiological Avatar

In theoretical terms, discussing the dissemination of an *Axiological Avatar* using the *Asymptotic Model* as an *intelligent agent* is very complex. The primary obstacle to developing an *intelligent agent* using the *Asymptotic Model*, or any perfect modeling system, is not to avoid a paradox by using a structured process such as conditional branching that would query unstructured stored data (this is bad). A perfect modeling system would assure that events are sustainable within the environment of the model itself. This means, the model must provide a continuum and be capable to value assess completeness, as well as incompleteness, regardless of subject matter.

Step 1

```

Begin Perspective
... until Viewpoint is satisfied
Begin Observer
... until Observation is satisfied
... complete observer loop
End Observer
... complete Viewpoint loop
End Perspective

```

Step 2

```

Begin Persistent 1 - Loop Strin
... until Systemic is satisfied
Begin Persistent 2 - Short Strings
if simple or realized
then ...
else .
if complex or unrealized
then ...
... until Extrinsic is satisfied
Begin Persistent 3 – Super Strings
if simple or realized
then ...
else .
if complex or unrealized
then ...
... until Intrinsic is satisfied
... complete loop 3
End Loop 3
... complete loop 2
End Loop 2
... complete loop 1
End Loop 1

```

The *Axiological Landscape*. In step 2, the *Loop Strings* are used to disseminate the *systemic* value. Once the *systemic* value is derived, the first loop disengages and the second nested loop is initiated. The *Short Strings* are used to disseminate the *extrinsic* values, which have a designated termination established by some sequence, and/or may be replayed time and time again with other *Short Strings* or *extrinsic* values. This means, the second nested loop may loop one or more times until an event satisfies the loop as completed. The second nested loop of *Short Strings* may have two scenarios for its *extrinsic* potential. The first *Short Strings* potential is the *realized* or *simple extrinsic* value. The second *Short Strings* potential is the *unrealized* or *complex extrinsic* value. The third is the *Super Strings* or *intrinsic* values and also has a designated termination to a constant sequence and may be replayed time and time again with other *Super Strings* or *intrinsic* values. The *Super Strings* may have two scenario potentials. The first *Super Strings* potential is the *realized* or *simple intrinsic* value. The second *Super Strings* potential is the *unrealized* or *complex intrinsic* value.

6. The Globalization of Value Theory

The globalization of Axiological dimensioning will emerge as the best suitable human-to-machine reasoning use of a value-driven *Avatar*. Through the emergence of Web 4, *avatars* will become commonplace. The *Axiological Avatar* will provide the preferred means to synthesize and scientifically assess the values subjected to cognitive behavior synthesized in the memory of a machine. The synthesis provides a means to value assess human interoperability with machine

Animating an *Axiological Avatar* requires constructing its *Asymptotic Expansion* properties that define it as an *object*. Content is disseminated using quantum string logic to manifest the properties that make up the *Axiological Avatar* as an *object*. This section will explore pseudo codification for *Landscape* an *Axiological Avatar* through properties created and animated utilizing two nested loops as step 1 and step 2.

In the image on the left, I have provided pseudo code as the logic for loop/nesting processes common to that of a computer software program. The pseudo code presents content population of the *Axiological Avatar*'s properties, as it disseminates through the propositioning of *Asymptotic Influences*. In this model, *Asymptotic Framework* defines the *Axiological Avatar* to have three Persistent value sets of systemic, extrinsic, and intrinsic to populate its *Asymptotic Trajectory* properties. The *Asymptotic Trajectory* properties are processed in the *intelligent agent* as *Loop Strings*, *Short Strings*, and *Super Strings*. When the first is satisfied, a second nested loop begins its process until that loop is satisfied and completed, and by which the satisfaction of the third nested loop is completed.

The referenced pseudo code illustrates many processes to gather the elements that define the *Axiological Avatar* and completing the intent of the *Axiological Landscape*. In step 1, the *Axiological Avatar's Trajectory* is populated with the

reasoning, utilizing *Axiological Landscaping*, which will define the *Asymptotic Influences*. *Axiological Landscaping* is maintained as the stored *Asymptotic Influences*, which the user may declare or disseminate from repositories whereas, machine reasoning is ascertained. Two global game changers for Axiological Psychology are open-data and open-government. As we progress toward social engagement in our governance, Axiological Psychology will play an important role in scientifically assessing the response to Crowdsourcing government policy and issues.

7. Conclusion

The objective of this article is to conclude the fulfillment of intentionality using *Asymptotic Analysis* as a means to mathematically elaborate Husserl's structures of consciousness (Boer, 1978, 121) with *Formal Axiology* as discussed by Hartman (1967, 19). Upon fulfillment of the intent, that asymptotic theory provides a theoretical set of properties sufficient to define a tangible array of features adequate to establish a mathematical existence to which the structures of consciousness encompass an environment that satisfies the value based analysis of an Axiological multidimensional observation.

Integration of Asymptotic Axiology supported by a semantic tool allows for more accurate means of creating, storing, and making good use of values. Therefore, with an understanding of this document and the exploration of the subject matter being discussed, I have propositioned this question, “*Does Asymptotic Modeling expand beyond the known mathematical practices of Formal and Applied Axiology giving way to the birth of Asymptotic Axiology?*”

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THE STRUCTURE OF VALUATION - BECOMING A *VALUES ARCHITECT*

David Mefford

DAVID MEFFORD, Ph.D., resides in Morristown, Tennessee and has 45 years professional experience working with the science of value, formal axiology, and its applications. The term, *formal axiology*, was coined by Edmund Husserl and developed into a science of value by Robert S. Hartman. David was Dr. Hartman's student and his first representative in Europe conducting seminars using the HVP with organizations such as Siemens and Volkswagen for the Karl Siebert Institute in Munich, Germany.

While completing his Ph.D. degree at the University of Tennessee, David evaluated and counseled psychiatric patients with the *Hartman Value Profile (HVP)* under the supervision of Dr. John Wolaver, M.D., Phillip Bakkus, M.D., and John Marshall, M.D., for three years. David's dissertation, *Phenomenology of Man as a Valuing Subject*, achieved a new and expanded frame of reference for *valuation* with a comprehensive typology of the value judgment habit patterns underlying personality and character structure. This axiological model of 26 cognitive types and 54 emotional conditioning patterns is currently in use by professional psychologists, sociologists, business consultants and coaches for individual and group assessments.

David has created numerous different axiological assessments including the *Values Usage Exercises (VUEs)* with Dr. Clayton Lafferty of Human Synergistics and recently co-created the *Personal Talent and Skills Inventory (PTSI)*, a parallel form of the *Hartman Value Profile (HVP)* which is currently being used for selection and coaching in 50 countries around the world.

David is co-founder, vice-president and board member of the Robert S. Hartman Institute and chairman of Axces Solutions, an axiological service provider, where he co-created (with Vera Mefford and James Robins) 60 new HVP parallel and alternate forms named, *Targeted Axiological Profiles (TAPS)*.

David and his partner Vera are also founders and directors of the non-profit organization, the Global Institute for Values Education, developing new values education materials and applications of formal axiology.

Abstract

This discussion addresses issues concerning the *formalism* of a scientific axiology and its applications to value with emphasis on subjective *valuation*. I comment on some of the recent articles and books by Rem B. Edwards, Gary Gallopin, Cliff Hurst, and Mark Moore, from a group of writers who present the best known representations of the math or logic structure intended to ground the *formal* aspects of Robert S. Hartman's scientific axiology. In this essay, I discuss four major issues from my own perspective.

1. Sets and especially very large sets are subject to *partitioning*;
2. The richest value formation is $[I > E > S]$ for objective value, but, for *valuation* it is $[I = E = S]^I$, where the öö superscript is a notation of holistic *emphasis* in the process of valuation by a human mind.
3. The axiological frame of reference for *valuation* must include *emotional conditioning* habits with room for change through experience and education; and

4. I redesigned the frame of reference for axiological *value* to a process of value enrichment in *valuation*, as developed in the Meta Axiological Pattern (known as the MIND MAP), first published in my dissertation.

I end the discussion with my own approach, first made clear to me by Dr. Roy Cebik, a member of my dissertation committee. I summarize my own method to ground and explain the *valuation* side of the science of value, based on the notion of *meaning emphasis* which is based on an asymptotic structure. The import of the *asymptotic* structure is that people will take just a few confirmed properties or points from one or more axiological dimensions and ignore all the other properties and these may be connected with an *asymptotic* curve. This may help to explain why individual persons are the richest, highest value, yet we can go to war labeling some persons as *enemies* and kill them.

I attempt to show that the structure of meaning *emphasis* best illuminates the structure of *valuation*. I close the discussion with a case showing the potential work of a *values architect* in business and in life. I characterize this essay with a quote from a currently popular Delta Airlines advertisement, “*We highly praise those who have gone before us, but we cannot create the future by clinging to the past.*”

1. Varying Points of View

In the most recent edition (2012) of the *Journal of Formal Axiology*, Gary Gallopin presents a defense of Hartman’s use of transfinite mathematics. Mark Moore (and other writers) are critical of Hartman’s use of transfinite mathematics. Mark Moore (1995) offers a *quantum wave model* for the formal foundations of axiology, which I see as a very promising approach. Cliff Hurst argues for a non-mathematical model, proposing linguistic and categorical means of justifying the epistemology (truth claims) of Hartman’s formal axiology. I see Cliff’s work as also very promising, especially for popularizing axiology, since trying to teach the mathematical foundations has proven to be a very difficult barrier. Other writers, such as Rem B. Edwards, have also presented criticisms of Hartman’s formalism, but have not offered compelling alternatives. By reviewing these points of view, perhaps we can gain more clarity about the logical structure that *best drives* a science of both value and valuation.

I should note that my own point of view remains open, accepting many models for the grounding of a scientific, formal axiology. An axiological practitioner or developer can be justified using *transfinite mathematics* for objective *value* to obtain an ordinal sequence from one dimension to another, and those who reject these concepts in favor of other methods can also be justified from their alternative perspectives. Some of these methods, like my own, are models of *valuation*, based on *meaning emphasis* (based on what a person prefers to tout and what they see as troublesome or *inadequate* in Hartman’s foundations).

I assert that there is no single *right* way that reveals the *truth* of value and valuation while other points of view are false or *wrong*. Each method is an *interpretation* with its own perspective and *emphasis* structure driven by a desire for and the quest for truth. Axiological practitioners may choose the model most favorable and *intuitively convincing* to them.

I remember a student in Hartman’s class on the interpretation of the HVP in 1969 who asked Professor Hartman, “*What do other value science models say about the nature of value?*” Hartman responded, “*Show me another one (a scientific axiology), and we will investigate it, but there is no other formal value system available for comparison.*” (Hartman, class discussion on the

HVP Manual of Interpretation, 1969). Now, we do have other models, and this investigation should prove to be very interesting.

2. Recitals (Assumptions and Definitions)

1. **Axiology:** The general label for *value theory* and *value science*.
2. **Formal axiology:** A logical frame of reference producing a *system* for understanding value and valuation.
3. **Mathematics:** *A science that deals with the relationship and symbolism of numbers and magnitudes that includes quantitative operations and the solutions to quantitative problems.* This is from the Greek, *mathēmatikos*, meaning, *placing in the mind* (as opposed to *placing it on the shelf*). *Mathematics* means *rigorously exact, perfectly accurate, and absolute*. It also means being *beyond doubt or questioning, definite and altogether positive - the highest level of proof and certainty* (Webster's Dictionary).
4. **Logic:** the science of *correct reasoning*. *Logic* is taken from the Greek, *logikē*, meaning, *word, reason, speech, or account*. Logic is the science that deals with *canons and criteria of validity in thought or demonstration and that traditionally comprises the principles of definition and classification - correct use of terms and the principles of correct predication and the principles of reasoning and demonstration*. Logic is *a system of formal principles of deduction or inference* (from Webster's Dictionary).
5. **Property:** A *property* is an attribute, characteristic, or distinguishing mark common to all members of a class or species; a quality or trait belonging to a person or thing; an effect that a material thing has on another material thing or upon the senses of an observer.
6. **Predicate:** An assertion (declarative statement) about a thing or object.
7. **Robert S. Hartman** asserted that *transfinite cardinal* numbers relate the three dimensions of formal axiology together by *exponentiation*. Hartman did not address transfinite *ordinal* numbers although the three dimension of axiology are ordinal transfinite symbols.
NOTE: understanding this point requires extensive explanation ó see Martin Zucherman, *Sets and Transfinite Numbers*, 1972 and Paul J. Cohen, *Set Theory and the Continuum Hypothesis*, Dover Edition, 2008).
8. **Partitioning:** The potential for defining pieces of an infinite set is not ignored in Hartman's work. Hartman states that *intrinsic value* has levels of *intensity* or *richness* (Hartman, 1967, 272). Hartman's work implies (by his adopting a constructed *principle of containment*) that non-denumerable infinite sets $|\aleph_1|$ may be *partitioned* by extrinsic elements $|\aleph_0|$ and this in turn by systemic elements $|n|$ contained within them. Reading between the lines of the *Structure of Value*, this amounts to an *axiological mathematics*, not well-established within the body of accepted mathematics in Hartman's day. Currently, such a *partitioning* can be mathematically demonstrated with several different techniques (for example, axiomatic set theory). I think Hartman was a visionary and he *intuitively* grasped what was to come in the mathematics of the future.
9. **Asymptotic linkage:** One discovery about the linkage among the three dimensions of formal axiology is based on the work of Robert L. Short and is called an *asymptotic linkage*. (See his article in this volume.) The three axiological dimensions are linked together in a fluid, dynamic manner in everyday life; however we can separate and isolate each them as an intentional object when we so desire. (Human subjects can direct their intentional focus to *any* object). The linkages among the dimensions are different for every human valuing subject, and we celebrate and

embrace these differences. As evidence for this, I cite the results of the HVP versus targeted parallel forms. For example, the HVP is restricted to a definite group of expressions, and some individuals will not relate well to the HVP proxy items or statements. Each person will see a slightly different linkage among the dimensions, yielding an asymptotic curve which highlights some properties while ignoring the rest. The results of the person's ranking of all items or statements are *asymptotic* curves linking the three dimensions, which works better to define results within the work-life context or what is dominant in the life of an individual.

10. **Values:** *Values are everywhere!* A **value** is the result of the brain's conversion of direct experience (immediate perception) into *meaningful* and *actionable* truth (a secondary judgment or conception). **Value** is, in general, the same as *meaning*, or in **valuation**, *meaning* confirmed and enhanced with *emphasis*. We structure *valuation* hierarchies through *meaning emphasis*. A person makes thousands of conscious and unconscious (conditioned) value judgments every moment, every hour, and every day. *Value judgment* is the primary human capacity that enables us to cope with our world - to survive and thrive in our society. *Valuation* is a union of two major human capacities: *rational* intelligence and *emotional* feelings, or attitudes, powered by *emphasis*. Consider the following formula in words.

$$\text{Valuation (by asymptotic emphasis)} = (\text{Knowing} + \text{Feeling})$$

When we judge the *value* of something, we use our *knowledge* of what it is and what it contains, *plus* how we *feel* about it - we *like it* or we *do not like it* (these two pillars influence the meaning judgment of what we *perceive*). In application to a subject matter, values may be explained in the following statement. *Our values reveal the foundation of our characters, how we think and feel in the context of our roles in life and how we appreciate our own selves within the horizon of our life-world.*

11. **Science:** *Science* is a structural foundation for many subject matters providing definite order to know *what is reliable and true* in that specific area *now*, and the predictive capability concerning what *will be* or *should be* in the near future. *Science* is a notion that indicates the maturity of a subject matter as it establishes *universal standards* that transcend all horizons. The subject matter is born and then goes through a developmental sequence on its journey to becoming a *science*, something like the following.

- a. *The first thing established is positivity - a border that separates a subject matter from all others – defining a function which draws a line around it within society.*
- b. *Then, exploration of this territory reveals a series of epistemological claims (truth assertions).*
- c. *These truth claims are verified or falsified in experiments (the scientific method).*
- d. *These experiments lead to a formal symbolism, which orders the subject matter in terms of universal standards.*
- e. *This formalism is the knowledge gatekeeper, the legitimization of the subject matter as science.* - (Foucault, 1971).

12. **Hartman's Foundations for a Formal Axiology:** A scientific axiology, according to Professor Robert S. Hartman, is based on the *axiom of value* and its *frame of reference*. The axiom says: *Any given thing has value to the degree it fulfills the intension [or meaning specifications] of its concept or name (class definition)*. There are three kinds of concepts that can be fulfilled for any given object.

- a. *Constructs*: the *minimal* number of properties needed to identify the object: the *definition (systemic or definite)*;
- b. *External Descriptors*: the elaboration of perceived class properties to describe and expose the object; what it does; how it looks, performs or acts by observing its external appearance and behavior - **extrinsic**.
- c. *Unique or holistic singularity*: the *total property inventory* of unique and irreplaceable objects, especially *individual persons* - **intrinsic**.

NOTE: When working on my dissertation, I had extensive conversations with Professor John W. Davis and we decided on addressing the *valuation* part of axiology to complement Hartman's foundations of formal *value*. This changed Hartman's axiom of value, somewhat. We changed the axiom of value, extending it to *valuation*. The change is from:

x has value to the degree it fulfills the intension of its concept (class name)

to:

x has value to the degree of meaning emphasis placed on its intension and matching extension by a human mind.

Dr. Roy Cebik said this was more *empirically* convincing in light of *how* people actually make value judgments. I have used *meaning emphasis* ever since in my work on the *valuation* side of scientific axiology.

13. **A Good X**: *Good* is a form of meaning ó to be emphasized relative to other forms like *fair, average* or *poor*. A *good X* is one that *exhibits all the properties X should have or ought to have*, which is an anchor in the *systemic* dimension of judgment (subject to *asymptotic emphasis*). A *good person* differs from this axiom due to the person's capacity to create her or his own self-concept or self-identity (Aristotle defines a *person* as an *entelechy*, able to create his or her own self-concept, which Hartman often cited). In general, the list of predicates to fulfill in valuation, needed to judge that it is a **good X**, may not be clearly defined; and most people will accept the *goodness of X* from *how a person is observed to behave*, what is *available in the life-horizon*, or what is immediately *at hand*.

14. **Hyperspace**: A space of *more than three dimensions* [example: the *hypercube*].

15. **Hyper-value**: A value of *more than three dimensions* [example: a *hyper-value*, such as *resonance* or *resonance restrictions*. This is *atmospherics*, as Doug Lawrence has so aptly named it].

16. **Geometry**: A branch of mathematics that deals with the measurements, relationships, and properties of *spatial* points, lines, angles, solids, and surfaces, which may have *more than three dimensions*.

3. Cliff Hurst's Response to Issues

1. Cliff Hurst writes in an e-mail, *“I welcome you to elaborate on what makes a theory a “formal” theory. I suppose that is what you mean by “formalism.” Our discussions around the Institute, I feel, fail to adequately define or explore that. My model, I believe, would be best characterized as an axiomatic model and not just a linguistic, grammatical justification of epistemology. Of course, axioms (to my understanding) can be presented either linguistically, or, sometimes, mathematically. To what extent do axioms lie at the core of any formal theory?”*

David Mefford replies: *“We can say in words that “A thing is what it is”. The formal expression of this statement is, [A = A]. This is what we mean by formalization, the result of converting empirical, tangible objects into symbols.*

2. Hurst continues, “It seems to me that you fail to distinguish in your outline when you are discussing the theory of formal axiology and when you are discussing variants of the HVP. It strikes me, that if we ever get the theory right, then how to make assessments which can measure the theory will become clearer. [By the way, I am right now using a traditional version of the HVP because that is the only way I can mentally tie it back to Hartman’s own work and the manual of interpretation. That’s personal preference; it’s not to imply that other versions are less worthy, or “good,” as some would say. It’s that the providers of alternate forms of the HVP (most of my experience here is with TTI) fail to make clear how they get from Point A, which is Hartman’s work, to Point B, their own output. Perhaps you should distinguish, as well between those who use Hartman’s original input and transform it into widely different outputs and those who also have changed the nature or wording of the input.]”

3. Hurst: “You and I have talked some about logic and whether or not all logic must be based on math.” David replies, “No, it is the other way around, math is based on logic proved in *Principia Mathematica* (Russell & Whitehead). Hurst continues, “That is an important issue, I think. If I remember correctly, you quoted Russell who said that they must. Your point doesn’t seem to insist on that. Of course, I agree with Hartman that there are other logics than mathematical ones.” David replies, “Yes, the logic of the heart, comes to mind.”

4. Hurst: “I am eager to hear what you have to say about transfinite ordinal numbers. That’s a new one for me.”

5. “My own argument, perhaps already realized, is that it is Frank Forrest who first insisted that the symbolic notation of superscripts and subscripts that Hartman developed, is actually—and only—exponentiation. As I read Hartman, he did not first describe his annotational system that way. He said it is analogous to exponentiation and then devoted page after page to describing it as exponentiation. It seems that his own enthusiasm for the math of it all carried him away.” David agrees.

6. Hurst: “I encourage you to elaborate on what makes science a science. Especially, if you can enlighten us about how Husserl’s or Dilthey’s ideas of a human science affected Hartman. I believe that, in the US, scholars are too quick to accept a narrower view of “science” than European thinkers did. Rem and Steve have both written briefly about this. Perhaps you can elaborate.”

7. “I have just been reading John Dewey’s (1910) *How We Think*. He has a chapter on judgment which, to me, says much the same thing that you are aiming at in your discussion of logic and science.”

8. “I have no idea what you mean by “hyperspace” but am eager to find out. I thought it was only a buzzword from Star Trek. Does this put you on more of a geometric foundation than a mathematical one as the basis for FA? I’ll stay tuned.” - Cliff Hurst

4. Response to Dr. Mark Moore

Dr. Mark Moore explained his quantum wave model to me and I responded to my friend Mark by phone. “I was just sitting on my porch watching the honeybees fly out and in and thinking about the mathematical equations describing their individual flight paths. This is built into their DNA, which is likely (as I understand quantum theory) a complex recording mechanism of aligned quantum strings activated by chemical triggers. The path could take many turns, slightly up or down or sideways - a totally unpredictable flight path. Even if I know where the bees are going (suppose, to the pond for water or to the flowering trees for nectar), the exact path taken is one within an infinite number of possibilities narrowed by the amount of chemical markers in the air.

Since the path is a curved line, the possible number of potential pathways, if we use transfinite math, is a magnitude of cardinality, Aleph₂. Now, if we were trying to make a robotic bee, I would not be able to even imagine a machine that could hold all these equations in storage to be called into action when the bee uses them. The DNA of the bee contains their primary operating system - the greatest recording, storage and retrieval mechanism of life.”

Of course, the space in which the properties can be identified has a *potential* number of points or locations, and this area may have borders restricting *size*. Nonetheless, the possible points within any three-dimensional, defined space are clearly *mathematically infinite*, which is supported by many proofs in the mathematical literature. I most like, 1, 2, 3, *Infinity*, by George Gamov (1964), and you can get most of this in the first chapter. (This book is available from *Amazon.com*.) However, an infinity in *pure* mathematics does not mean that there are infinities in *actual* human value and valuation experience. I agree with Mr. Short that human valuation is most likely *asymptotic*, a curved line that approaches but does not ever actually touch the cardinality of the value dimensions. The home of *infinity* is in pure mathematics or in God ó but not experienced in our empirical life-world.

To define a point in space, we have to draw three intersecting lines and where the lines intersect is an identified *point*, a spatial designation with *no dimensions*. We can always specify that the curved line goes through this *point* identified by the intersection. This would nonetheless be a *property*, and the property may be a mathematical one, or it may some other kind of property, such as a material or even an *imaginary* one.

The number of curved lines possible within a cubic space is infinite to the cardinal level of aleph₂. A continuous plane of two-dimensions is a reduction of this, and even a straight line is continuous also, but with a lower level cardinality, which specifies a corresponding level of infinity, |N|. The number of straight lines we can draw through a single point is infinite to the level |Aleph₁|, but the number of possible curved lines through that single point is infinite to the next transfinite ordinal, the |Aleph₂| level. What makes the whole endeavor so ridiculous (absurd) in transfinite math is that the *set* can be further enriched, by *exponentiation*, to an óAleph_ωö, the absolute end of the transfinite cardinal sequence. This is a result in *pure* mathematics, which is only a *shadow* of the actual experienced life-world. Moreover, human value and valuation do not necessarily conform to *pure* mathematics, and to try to make it so is a category mistake.

5. Robert S. Hartman's Use of Transfinite Mathematics

What can I say about the scientific foundations of formal axiology ó the logical structure that underlies axiological assessments originating with the HVP? It is assumed by most practitioners that a formal axiology must be linearly anchored in mathematics and logic ó but it would have to be a logic that includes emotion and feeling as well as rationality. I think it was *originally* based on Husserl's distinction of the dimensions of logic in *Formal and Transcendental Logic*, (1925), interfaced with G.E. Moore's elaboration of *emotion* in Chapter 5 of *Principia Ethica* (1903). Formal axiology is centered on *value and valuation*, and as such it requires a different kind of logic than that of the natural sciences, a logic that bridges the gap between *feeling* and *thinking*. Many believe that science has to be *value-free* in order to qualify as science, as Hartman did in his treatment of *value*. These writers place science on the sacred alter of *rationality*. But, what compels us to restrict a scientific system of *value* to the rational alone? Human beings are *not* machines or robots! *Formal* axiology presents a radical departure from traditional science due to its quasi-

mathematical substructure ó a departure from the rational into real life where we not only think, but also feel and act. Formal axiology is the *science of value* itself, a *positivity* (having a distinction border) that includes *emotions* and *sensory feelings*, requiring a more robust mathematical structure to ground it and to provide *order* to this complexity (G.E. Moore, Chapter 5, 1903).

The mathematical structure that, until recently, has worked fairly well is *axiomatic set theory*. Robert S. Hartman saw *transfinite structures* as the only way to order the thinking-perceiving-being structure of value and valuation. The *feeling* component of value is driven by emphasis and is the primary reason for using formal set theory with its transfinite cardinal numbers, a symbolic, synthetic characteristic that can best reflect the enormous *vastness* of human *emotional* sensitivities. This emotional orientation seems to always trump *rationality*, made absolutely clear in the disputes and variations in *political* and *religious* positions. Whatever we may *think* of a given thing or object, *emotion* can and frequently does carry us away toward something *similar* to the infinite; we *feel* it emotionally, *as if* it were *infinite*. When we recognize the inclusion of our *feelings* in valuation (the *driver* of evaluative judgment) we are thrown into a region that does not have the distinct black or white borders that we so admire in *rational natural science*. Nonetheless, these borders can be rather precise if we use axiomatic set theory (type-two set theory described below). We can establish the *foundations* of a formal axiology as a genuine science using transfinite set theory which includes 15 basic intuitive axioms and a set of operation rules.

Robert S. Hartman used *formal set theory* to identify and distinguish the three dimensions of axiological value, *systemic*, *extrinsic*, and *intrinsic* value. Note that formal set theory does not involve emotion, as value and valuation clearly does (Hartman, 1969). These dimensions are defined using an *intensity* or *density* hierarchy, in Hartman's mind best captured by transfinite *cardinal* numbers (symbols). He combined the dimensions by showing that any one of the dimensions can be *valued* by another dimension for nine basic positive combinations, $3^2 = 9$. These combinations are labeled **compositions** (harmonious combinations that complement each other). The dimensions can also show value *loss* or *decay* when one dimension is *disvalued* by another for nine basic *discordant* combinations, labelled **transpositions**. The nine compositions plus the nine transpositions form an eighteen (18) level value hierarchy from *best* to *worst* ó from the richest expression of goodness to the greatest value loss or greatest evil. Thus, we obtain a spectrum of value from the highest *good* to the worst *evil* in our experience. This value hierarchy is the binary logic establishing a norm or standard for the *Hartman Value Profile (HVP)* and for all *parallel-form* axiological assessments.

The question is, can we show proof that Hartman's value hierarchy is valid and sound. The reason this question is so important is that Hartman used *transfinite cardinal numbers (symbols)* to identify the value dimensions and *transfinite* set theory is difficult for most people to understand. However, the answer is *yes*, we can prove that the value hierarchy is sound and reliable as the measure for all value and valuation. I will now review the *formal set theory* foundations of formal axiology to show this.

Formal set theory is an effort to *unify* mathematics (Russell and Whitehead, 1910). It is possible to express most of known mathematics in terms of *sets* (together with an underlying synthetic language and rules). Therefore, it is critical that we clarify what we mean by a *set*.

It is important to know that there are *three* (3) basic types of set theory. George Cantor originally introduced the notion of a *set* in the 1870s to distinguish different kinds of transfinite numbers and to extend ordinary arithmetical operations to these. To Cantor, as it was to Hartman, a *set* was simply a collection of definite, distinct objects to be conceived of, as a *whole*. We need to find ways of refining set theory to update this *naïve* concept of a *set*. I will refer to this approach

as *type-one* set theory or *classical* set theory. Hartman used classical or type-one set theory and this has led to several chronic problems pertaining to formal axiology, as a genuine science.

The attempts to solve the problems and anomalies associated with classical set theory has led the development of *type-two* set theory, an *axiomatic* set theory where precise rules determine which objects are to be accepted as sets. The first successful axiomatic treatment was that of Zermelo (1904-1908) and refined by Fränkel and Skolem (1921-1929). In an axiomatic system we begin with a few primitive undefined concepts and a list of rules for qualifying objects as *sets*. The axioms must be sufficiently powerful to express advanced mathematics and not so permissive that a statement, x , together with its negation, $\text{not } x$, can be derived.

We need to understand and avoid the famous *Russell Paradox* (named after Bertrand Russell, 1872-1969), the English philosopher and mathematician who is probably most famous for being arrested in a sit-in war protest at the age of 93. What is the *Russell Paradox*? The Russell Paradox is restated in the following. In axiomatic set theory, the only requirement is that exactly one of the statements, $X \in X$ and $X \notin X$, be true. We say that X is *ordinary* if $X \notin X$ (X is *not* a member of itself). Let A be collection of all ordinary sets, and assume that A is a set. Is A ordinary? If $A \in A$, then A is not ordinary, and by the definition of A , it follows that $A \notin A$. We have a contradiction! If $A \notin A$, then A is ordinary and, hence, belongs to A . Again, we have a contradiction. The paradox results from assuming that A is a set. Thus, not every describable collection of elements can be considered a set. This is particularly true when we attempt to establish enormously large sets ó sets that swallow up all other distinctions due to their very size. The collection of all ordinary sets is *too large* to be a set and the collection of all non-ordinary sets is also *too large* and impossible to collect into one single grouping.

In type-two set theory, the Russell Paradox is avoided by eliminating certain collections that are *too large*. In the theory of types, the approach used by Bertrand Russell and Alfred North Whitehead in *Principia Mathematica*, sets are introduced in a hierarchical structure. $X \in Y$ can hold only when Y is one type level higher than X . Hartman used this theory of types together with Cantor's naïve notion of sets to produce the formal value hierarchy. However, transfinite sets of infinite size are *not sets*. It is up to us to refine and further develop Hartman's construction of sets to establish the axiological value hierarchy.

Another important development, which I will call *type-three* set theory, was that of *class* set theory ó due to von Neumann (1925-1929), Bernays (1937-1954), and Kurt Gödel (circa, 1940). Here, certain collections, called *proper classes*, are considered as well as sets (*improper classes*). $X \in Y$ cannot hold if X is a proper class. The collection A consisting of all ordinary sets is a proper class, and thus $A \in A$ cannot hold and the Russell Paradox is thereby avoided.

Note: I gleaned most of the above comments from Paul J. Cohen, *Set Theory and the Continuum Hypothesis*, Dover edition, 2008.

Dr. Frank Forrest, in several of his books on the axiological-based, *Ethics for the 21st Century* and his college course on *ethical decision-making* does a fine job using transfinite mathematics. However, Dr. Forrest was true to Hartman, following him within the horizons of *classical* or *type-one* set theory with all its problems. I think the subject of transfinite mathematics applied to axiology should be revisited using an axiomatic approach directly, and moreover the mathematical foundations of the emerging science of formal axiology deserves a more serious and exhaustive inquiry that can only be accomplished using at least the *type-two* set theory. *Axiomatic* set theory, including transfinite ordinal, cardinal and *aleph* structures, is so significant, it may very well be the structure or ordering mechanism of *conscious awareness* itself - marrying reason and

imagination with *emotional feeling and desire*. This combination marries *rationality* and *deontological possibility*, producing the cognitive reflexivity of the human mind.

Some writers have attempted to restrict the mathematical treatment to the finite with the result of removing emotion from the equation, which I do not recommend for *human valuation*. In other words, they want to make axiological value science purely rational; they want to make formal axiology *value free*, which to my mind, is *contradictory* and *impossible*. A science of *value* cannot be *value-free* (Husserl, *Crisis in the European Sciences*, 1932).

6. Background

I remember discussing this subject with Professor Hartman in his library in Mexico in 1970. I asked Dr. Hartman why he felt he had to make axiology so complicated with the use of transfinite cardinal numbers. He told me to show him another method and he would consider it. He could not see any other way of grounding a formal axiology. He envisioned a more extensive and detailed treatment of the mathematical foundations of formal axiology in a book he planned to write someday, to be called, *Principia Axiologica*. (I believe there are some drafts or articles on this in the Hartman Special Collections at the Graduate Library of the University of Tennessee. [Note by Editor: The folder on this contains nothing written by Hartman]). Unfortunately, he did not live long enough to produce this book, actually an *impossible* task, with the tools he used. I believe this book needs to be written now more than ever, without a *transfinite* foundation and with more weight put on the *empirical*, for a better balance of human experience. What I intend in this discussion is to set down some key thoughts about the content and conditions for such a work in order for someone else to be inspired to tackle it. I will begin with a story of my experience with the subject.

I used to be good friends with Mr. Nicholas Skinner from Oswego, New York (a self-taught mathematician and logician) who introduced me to *axiomatic* set theory in 1974, in New York City. Nick had found Hartman in his investigative research and had contacted Professor John W. Davis, head of the University of Tennessee's Philosophy Department. John put me in touch with Nick, and we met in New York on my way back to Germany where I was working on my Master's Degree at the University of Heidelberg. We met in a restaurant near where both Jan Hartman and Dr. Leon Pomeroy lived in Manhattan. After that first meeting we worked together for three years until the time Nick formed *Axionics*, an axiological consulting firm. Nick asked Vera and me to join *Axionics*, but we declined due to my doctoral program at the University of Tennessee and my psychiatric *residency* job with three psychiatrists, John Wolaver, M.D., Phil Bakkus, M.D. and John Marshall, M.D., who had their office only three blocks from my residence in Knoxville. So, we could not see moving to Richmond, Virginia and joining this business before I had completed my education and training. Drs. Frank Forrest, Mark Moore, Richard Leggett, and Kurt Kaltreider - all worked for *Axionics* in the 1977-1978 time frame.

Nick, his wife Lulu, Vera, and I met regularly in Stanton, Virginia, at Nick's home in Oswego, New York and later in Richmond, Virginia and Washington, D.C. We really had a good time exploring the mathematical and logical foundations of formal axiology over that three-year period. We met a few times after *Axionics* folded, and Nick took on a large consulting job working for the United States Air Force, optimizing their budget (one of the first forays into *values architecture*). In our many meetings, Nick shared with me his proofs for Hartman's value hierarchy using both ordinal and cardinal transfinite numbers. Of course, that was done using *type-two* and *type-three* set theories, the axiomatic approaches. If an axiological developer works only with *type-*

one, or classical set theory, as did Dr. Frank Forrest, the value hierarchy cannot be formally proven. Consequently, Dr. Frank Forrest has developed a rather *unusual* version of the *Hartman Value Profile* using only 14 items in each list ó the direct result of applying the *type-one* set theory only (without the appropriate application of *emphasis*, ignoring transfinite *ordinal* sequencing).

I believe Hartman used *type-one* set theory, but he put this together with his *intuition* about what the *axiom of value* could add to any kind of set theory. This is often referred to as *pre-axiomatic* set theory using mainly the rules of arithmetic and logic, as Hartman used in the *Structure of Value*. Supporting this opinion is the chapter in the *Structure of Value* on calculating values where he used only the rules of basic arithmetic. Hartman envisioned revising this into an axiomatic set theory for what he thought would be the *Opus Magnus* of his life, *Principia Axiologica*, mentioned above. With that thought in mind, it is certainly worth exploring what is one of the major *formal* issues at the heart of axiological science, *transfinite mathematics*.

7. Theory and Experience

What is a *transfinite* number or symbol? When I was first introduced to this mathematical concept, it was beyond my understanding. Hartman often discussed Bertrand Russell's definition of *number*, which is: *a class of classes similar to a given class*. The same definition holds (more or less) for different sizes or intensities of infinite structures (the transfinite, arithmetic hierarchy). Given this definition, transfinite symbols are indeed *numbers*. In pure mathematics, there are different levels of infinites, or rather a hierarchy of infinities based on how many *units* can fit into a given line, plane, cube, sphere or whatever geometrical or imaginary construction suits the practitioner. Transfinite numbers are the largest *numbers* in our mathematical system ó so large they are not *integer* or *whole* numbers at all, but numbers so large that they are best understood as synthetic *symbols* representing *all possible* numbers. I think one of the difficulties most axiological developers have in understanding Hartman's transfinite mathematical foundation is that most practitioners tend to treat these largest numbers as if they were *small*. An *Aleph* number or symbol is immensely large and capable of including *everything* in existence. Therefore, aleph structures must be *partitioned* for humans to grasp their meaning through eating small bites of it and extrapolating from these small parts to the whole range and depth of it. Yes, *size* counts in terms of the now famous, *too big to fail* from the economic perspective on Wall Street. Size also counts in the *density* of properties in space or in an object existing in a given space.

Size is a relative concept. We have tools to see into the infinitesimally small nanoparticles, such as the electron microscope, and we also have the Hubble Telescope and its successors to see far into the vast expanses of our universe up to approximately 13 billion light years to the origin of the universe. Even *13 billion* is a difficult number to conceive and when we multiply this number of light years by the number of miles traversed by light in one year ó we get a number that humans cannot grasp, unless you happen to be a *member of Congress*.

What distinguishes the three different value dimensions? Hartman identified **systemic** value as the only *finite* dimension since it is defined as the minimum number of properties to distinguish any object as such an object. Every referent of any word in the English language has a systemic label for identity and definition. Therefore, there is always a *systemically-defined linguistic handle* at the front of all value and valuation dimensions. *Systemic value* is the structure of *knowledge*. I believe all three axiological dimensions must be *understood as finite*, because it is virtually impossible to have a measurement predicate list of more than one hundred or so specifications ó even a list of *one thousand* is difficult to understand and too cumbersome for

effective communication. The larger the list is, the more cumbersome it becomes. Using transfinite cardinal symbols is a promising method to study, or include, all possibilities, using symbolic notations ó for *meaning emphasis*. It seems to me that in actual acts of valuation or determinations of the value content of an object (value), most people use a definite, systemic, finite list; they use the systemic as *linguistic* expressions of material features (descriptors), and they also use the systemic for appreciation of intrinsic objects, using *metaphorical* language, such as, *x is beautiful and wonderful*.

Hartman identified the **extrinsic** (or external) dimension as a *countable infinity* of potential properties since the valuing subject can go on and on selecting *more* comparative and relational properties centered on a given object or event. Do people actually do this in the evaluative value judgment of objects? *I do not think so!* I think we always stop the predicate list when we reach our own level of satisfaction or *adequacy* for understanding and communication. Therefore, actual value determination and valuation in the extrinsic dimension is not $|\aleph_0|$, but $|n\dots|$, a finite collection of features that can be extended if found needed in a conversation for further explanation and clarification.

Hartman identified the **intrinsic** as the dimension *containing* an *uncountable infinity* of properties as in the description of a human being who is a *container* of systemic, extrinsic and intrinsic values and valuations ó but there are so many intrinsic value properties in the inventory of a living person, it is impossible to grasp the value of a whole person using only systemic and extrinsic predicates or perspectives. The human *person* is an object (*as well as a valuing subject*) that is dynamic and changeable and it is impossible to nail down exactly what properties will emerge next ó it is never static or *fixed*, until the person's death. Therefore, the human person is an object with an uncountable and *indeterminate* number of actual and potential properties. The person's value becomes fixed only when life ceases and the person becomes an extrinsic thing, a *corpse* that will decay and return to dust ó unless mummified. While living, the human person will always be an *intrinsic* value object, as well as a valuing subject. The worth of an *intrinsically-valued* person can only be grasped with *emotion* added onto the rationally-defined, finite predicate list. Emotion adds *emphasis* or *quality* to the rational *quantity* and crowd-sourced *quality* is evidenced by social groups and commercial markets.

We could also limit ourselves to only the rational components of these dimensions in terms of *systemic definitions* alone (which Hartman's axiom of value does). We need an example and we take it from one of Hartman's lectures on óWhat is Value?ó presented at Berkeley University in 1972. Hartman asked the audience to answer the question, óWho are you?ó A young lady answered, óI am a student.ó Hartman responded, óNo, being a student is what you are *doing*, but not *who* you are. Another audience member then said, óI know the answer, I am myself, Suzie Smith.ó Hartman said, óYes, this is the right answer, you are your own self ó uniquely different from all the rest.ó An individual person has an *indeterminate* property inventory which cannot be grasped by the systemic or extrinsic dimensions.

Think about Michelangelo's famous sculpture of *David* that rests in a courtyard in Florence, Italy. When Michelangelo went to the hills to search for a large cube of marble, he could see the final sculpture in it. What else could he have seen? Namely, what are the possibilities of curved lines in that piece of marble? Can it be proved that the number of possible curved lines in a three dimensional space is finite? No, this is such a reduction of the uncountable, it seems ridiculous. Of course, the countable subpart of the uncountable is always *finite*. A sculpture of the above student, Suzie Smith, could be crafted. A sculpture of anyone else in the world could be

crafted ó from a pool of six billion persons on this earth. However, would we stop with only persons? No, we could craft any conceivable shape or form from simple geometric figures to intricate complex forms. It is only with set theory that we can determine the number of possible curved lines in this space. That number is an aleph-two $| \mathbb{N}_2 |$ transfinite cardinality (shown in axiomatic set theory, Martin Zucherman, (1972) since the number of curved lines cannot be placed into a one-to-one correspondence with the number of straight lines, an $| \mathbb{N}_1 |$ transfinite cardinality.

Robert S. Hartman's *axiom of value* boils all this down to the essence of *goodness*, and this axiom, as the center of formal axiology, transforms it into the *science of Goodness*. Namely, the axiom of value articulates what *all* value objects (or the *evaluative judgment* of objects) have in common. The axiom of value states, *a thing has value to the degree it matches the specifications in its definition, name or concept meaning list*. I think it would be more reflective of actual value and valuation to change the axiom somewhat, to: *X has value to the degree it fulfills the intensions of its concept specifications, according to what is emphasized by most valuing subjects*. I am now focusing on *crowd-sourcing*, since this determines *extrinsic, economic markets*.

Hartman's foundations are summarized in the following lists.

<u>Kinds of concepts</u>	<u>Description</u>	<u>Example</u>
Synthetic constructs	made up by humans	My SSN
Analytic	abstracted by comparison	How I dress and look
Singular	unique, holistic	I am <i>David Mefford</i>

Now, when a given thing fulfills one of these concepts, it has a degree of *value* in that dimension as follows.

<u>Concept Instantiation</u>	<u>Value Dimension</u>	<u>Axiological</u>	<u>Cardinality</u>
Word/definition	systemic	finite, definite	$ \mathbb{N} $
A tangible thing/event	extrinsic	infinite, definite	$ \mathbb{N}_0 $ (aleph null)
Total property inventory	intrinsic	infinite, indefinite	$ \mathbb{N}_1 $ (aleph one)

Axiological *valuation* is the science of *how the brain works, integrating knowledge and feeling*, when making evaluative judgments of direct experience. In the act of making an evaluative judgment, our brain works together with our emotional feelings in order to process direct factual experience into meaningful experience by *meaning emphasis*. Conscious experience is continuous, unified and dynamic - *alive*. Whatever we are not able to directly see, the brain adds on to maintain *coherence* in experience. Within conscious awareness, we have the structure of language (systemic), interfacing with the things, processes and events all around us (extrinsic); and an existential sense of *being present* at the center of it all in community with family and other people (intrinsic). Axiology teaches us to approach the understanding of the intrinsic continuum, first with the systemic understanding of the rational, then second with the analysis of materiality and behavior ó and this sequence comes to an end as it all blends into total existence in an intrinsic, holistic fashion ó including spiritually.

Remembering our example of Michelangelo's *David*, above, there is an ordinal sequence for all transfinite cardinals which he not only saw in the marble, but *felt*. We begin with $| \mathbb{N} |$, the definition with finite cardinality (getting the piece of marble from the mountain to the city of Florence). Then in second place comes the $| \mathbb{N}_0 |$ (chipping away the unwanted pieces) and in third

place is the $|\aleph_1|$ (the final creation). Many think of God and heaven as the highest richest infinity, or perhaps the *only infinity*, since we cannot experience an infinity of any kind with cognition alone. However, it is not likely that we will *see* heaven with any of our great machines, for heaven is something that is mainly detectable by *desire, faith, and feeling* in our minds and hearts. The reason may be that *God is too large* to be placed into any container at all ó but rather God transcends all possible containers. In the exchanges between Robert Hartman and Charles Hartshorne, their agreement was that God is best represented by an *aleph* exponentially expanded to the *omega* power, where the omega is the final ordinal in the *super-transfinite* sequence $[\aleph_0 \aleph_1 \aleph_2 \dots \aleph_\omega]$. The symbol, *aleph*, \aleph , is a transfinite *cardinal* symbol and omega, ω , is a transfinite *ordinal* symbol, *partitioning* the Aleph structure. In any case, God is the richest infinity and cannot be placed into *any container* at all ó *God* must be a Super-Being that transcends all of our constructed containers.

George Cantor, who first established set theory and transfinite set theory in the 1870s, and he went insane when contemplating *aleph-two* ó an infinity so rich it is difficult to describe and this is only the *fourth* infinity in an endless mathematical hierarchy of infinities (Gamov, 1961). Nonetheless, it is a mathematical reality, and, like the *concept* of Heaven, mathematical realities live in the systemic dimension. With an emotional infusion, *Heaven* lives in the intrinsic dimension when *emphasized* to the highest intensity of emotion and feeling, with no tangible extrinsic existence in space-time. Religion (and *politics* for sure) is heavily infused with *emotion* to the extent that it is difficult to have a rational discussion of any kind, because *belief is strongly emotional*. I am not a theologian, but I believe this is the reason why *Jesus* had to come to earth to live among us ó to establish an *extrinsic* presence of God (among other, perhaps more significant purposes). In any case, there were no concrete applications of transfinite mathematics until Hartman attempted to apply it to the dimensions of value.

Some think transfinite symbols are special ways of communicating and may be best treated as *metaphors*, as Hartman asserted, thereby reducing the power of these largest numerical symbols. However, Steve Byrum is right, in my opinion, to understand the hierarchy of multidimensional types as circular and not necessarily linear (this point is well-covered in the development of the *Meta Axiological Pattern*, or MIND MAP, method, by this author). However, the binary axiological hierarchy underlying the HVP is linear and the tertiary hierarchy developed by this author in his dissertation is treated as *circular* suggesting an ideal similar to Nietzsche's *overman* or *superman* (it is interesting that Nietzsche spent his last days in an insane asylum).

The *Übermensch* (German for *overman or superman*) is a being that can enter any value system at will and fit in with it with no tension or anxiety about the *values* and *valuation emphasis* found there. We do have to have a *standard*, namely, a formal deduction of 13 *tertiary* axiological formulae in the sequential order of value increase (or decrease) by *emphasis*. However, in practice, the formulae are indicators of what kind of *value emphasis style* a person should take on in order to fit in with the value system of the special interest or context at hand, whatever that may be.

Consequently, at times, suppose at a funeral, your will put on the *suit* of *empathetic* value, $[I > E > S]$. At other times, suppose at tax reporting time, you will put on the suit of the *systemic* style, $[S > E > I]$. At social events, we may put on the suit of the *social* style $[(I = E) > S]$. When building a house, you may put on the suit of the *practical* style $[E > (I = S)]$. I am sure you can think of other circumstances where you would choose another formula for your most effective interface with other people in different situations. To see how leaders in different situations have

to adopt different value postures to fit the situation, let us have a look at a new emerging profession, the *Business Architect*.

A Business Architect is a species of Values Architecture with a focus on the design and direction of a business, with an eye on business energy *optimization*. A business architect has to be able to make the shift to any value perspective needed by the business and the business *market* situation (Paul Arthur Bodine and Jack Hilty, *Business Architecture, An Emerging Profession*, 2009).

A *Values Architect* is the umbrella for all forms of architecture, *the art and science of building*, suggesting geometrical, *defined value spaces* of painstaking construction to unite conflicting value systems competing in our life-world. The *Values Architect* has to become *versatile* for efficiency in building values, unifying any and all value perspectives into a cohesive whole for success in business and for greater personal success through living the *Good Life*.

Values education is a species of values architecture, and the best educational result is achieved through teaching a *process ethics*, as I did in my recent book, *The Knowledge of Good and Axiological Science – Foundations of Humanistic Transformation*, University of the State of Mexico, 2012. Dr. Rem B. Edwards will soon published a book titled *An Axiological Process Ethics*, written from a Whiteheadian/Hartmanian point of view.

8. Hartman's Value Hierarchy

When Robert S. Hartman wrote the *Structure of Value*, he did not express the rationale for the value hierarchy in strictly formal terms, favoring mainly philosophical explanatory language. He said that the hierarchy was not a *mathematical* one, but rather an *axiological* one. So, what did Hartman mean by the *axiological* hierarchy? Let us reflect on the following thought sequence to prove the hierarchy.

There is an *order* to each of the axiological dimensions. S is contained in E and E is contained in I, and for all value expressions, $[(S \in E) \in I]$. Or, by *emphasis*, $[I > E > S]$ according to Hartman's axiom of value, where the three value dimensions represent different intensities of properties within the total property inventory.

This amounts to ordering the three *sets* ó in a *greater than - less than* relationship among them. Therefore, the general human judgment capacity for determining *Value* is well-ordered by Hartman's *axiom of value*. Within each value dimension (take intrinsic value for example), there is also a *well-ordering* structure. The *axiom of choice* in axiomatic set theory is similar to the *well-ordering* axiom. The intrinsic set $\{I\}$ is well ordered by ordinal indicators and these ordinal numbers are transfinite ordinals or *omegas*.

We have at least three *omegas* in the intrinsic set or three transfinite *ordinals* within the intrinsic set identified by the cardinal symbol, $|_1|$.

$$\text{Intrinsic value or } V_i = [\{_0\} \cup \{_1\} \cup \{_2\}] \text{ and} \\ V_i = [((\{_0\} < \{_1\}) < \{_2\})]$$

1. The first transfinite ordinal in any intrinsic value set is ω_0 , the identifier of the set plus *any* chosen constructed or definitional properties.
2. The second transfinite ordinal in any intrinsic set is ω_1 , the tangible, *material* content of the intrinsic set in clusters of properties.

3. The third transfinite ordinal in any intrinsic set is ω_2 , the rest of the property inventory not captured by the first two transfinite ordinals ó ultimately merging the subject and object in a continuum with no separation.

This is how Hartman's value hierarchy is well-ordered. Therefore, $[S^I < E^I < I^I]$, the symbols inside each value dimension, mean less than fully-determined using transfinite ordinals, by emphasis. This shows two axiological laws. One shows the axiological value hierarchy and another shows the ordinality within any axiological dimension.

We can have a well-ordered intrinsic set (by the axiom of choice) where the systemic is separated from the extrinsic, and both of these are separated from the intrinsic. However, the systemic is included in the extrinsic and the systemic is also included in the intrinsic regions of the entire set (Hartman). Therefore, inside the extrinsic region, intrinsic omega-one, there will be a sprinkling of systemic properties between, above, below, or wherever in omega-one ó because we carry the systemic along with us into the extrinsic region. Thus, a better way of expressing the relationships of the axiological dimensions would be to use the ó member of. Then we would have the expression for an intrinsic set, $V_I = [(\{ \text{ }_{0/S} \} \in \{ \text{ }_{1/E} \}) \in \{ \text{ }_{2/I} \}]$. However, this expression does not show how to construct exactly where the systemic properties fall within the extrinsic region or in the intrinsic region because it is asymptotic. Therefore, the spread or sequencing of the systemic properties is not restricted to a specific order throughout the intrinsic region which includes the extrinsic and systemic. By the axiom of choice, the ordering could be sequenced in any defined preferred manner. In my view, the systemic set can be determined by cardinality, as Hartman did, namely, $|n|$, a lower-case n, making it finite, but if systemic properties are accepted as ordinals within an intrinsic experience, the systemic set can also be infinite, $|N|$.

Hartman defined all systemic values (both large and small) with the cardinal symbol, $|n|$, a denumerable finite set of properties or property place-holders. In practice, we use the simple S symbol to represent systemic value. Clearly, the systemic properties are contained within the external or extrinsic region, since virtually all systemic properties are abstractions of extrinsic phenomena expressed in language. That leads into the extrinsic region, the region beyond the systemic horizon.

In the world of sports, the systemic indicators are about game knowledge, purpose of plays and moves, purpose of game strategies, rules of play, organization of the game, a player's or game statistics, and the authority of the coaches and officials. The stated systemic values all occur in the holistic context of an actual game (intrinsic) involving all players (extrinsic value of a person, valued systemically as one of the players).

Extrinsic value indicates tangible perceived properties. My flower in its pot is a tangible thing that I can see, touch, smell and feel - an extrinsic value object. The properties of the extrinsic object are found in clusters. All the discreet systemic properties come from material clusters of properties such as red blossoms or green leaves ó descriptive comparative terms indicating an external, tangible thing or object.

Do I plant my flower in the ground or keep it in its pot in the house? The flower's relation to other plants and objects shows how the flower influences the composition of my yard or living room. I probably had a place for the flower in mind when I acquired it. How the flower looks in its setting is an extrinsic focus. The fragrance of the flower adds to this extrinsic view and leads directly into the intrinsic, the holistic, total collection of all its properties. The extrinsic dimension centers on observable descriptors. These lead into the intrinsic totality of all possible descriptors,

including all potentials, even the poetic and Divine. The region of extrinsic, tangible properties includes the omega-zero collection of systemic properties and is consequently much larger and on a different level or in a different dimension designated by the transfinite ordinal, ω_0 .

What are the extrinsic descriptors of my farm? My farm has a gravel driveway connecting the main highway on the East side, Old Highway 25-E, to Statem Gap Road on the West side. On either side of the gravel drive is pasture where the horses graze. To the South there is a pond with a green wooden fence around it. There are three houses, two barns, four outbuildings, and a honey-processing facility. As you drive up to my house, you would notice twenty beehives on the left. When we describe in words what you see, we always use systemic definite locator concepts, together with what you *actually observe* extrinsically. The systemic guides and orders, with descriptors, what we see in the extrinsic.

One interesting feature of the farm is an old graveyard on the property. When my grandfather asked the descendants if they wanted to move the graveyard, they declined to do so. So, now it is a part of the pasture, but you can still see a few gravestones with names on them if you look close to the ground. The descendants value the grave-yard intrinsically, but this is *negated* systemically, due to lack of funds to move it.

In sports, we describe plays and player moves in the same way. We use systemic language such as, *the ball is on the 20 yard line of the blue team*. If you hear those words, you know that the sentence is about football, a game with a 100 yard field divided into ten 10-yard segments, the *grid-iron*. A *play* is a design for the movement of all players on the team under a given game circumstance to achieve the goal of moving the ball sufficiently to get a first down (10 yards in no more than 4 plays) or to score a touchdown or field goal.

Intrinsic value is a holistic container of the complete property inventory. I love my home ó there is no place on earth like it ó *for me*. It is certainly unique and that is expressed on our Apiary sign at the road entrance that states, *honey with a touch of magic*. The children who play here each week think of it as a magical place with hobbits and fairies. It happens to be where I was introduced to the world, having been born here. *My home* is an *intrinsic value*, for I am *one* with living and being here. I am living in my grandfather's house built in 1925 and living here brings back memories of grandma and grandpa, mom and dad and our extended family. The flower discussed above can become the focal point of my intrinsic valuation, and I can see the entire universe in that flower - if I see it directly, without mental interference, with my *emotional feeling* not mediated by *thinking* about it. When I plant it in my yard, it can become, at times, the focal point of intrinsic valuation of *my home place*. When I notice the flower in its setting, I *feel* at ease, and *know* I am home.

Intrinsic valuation brings about a *holistic* view of my farm that includes *all* perspectives and properties. In sports, the holistic view is the *intrinsic* focus, one that takes into it the entire property inventory of the game. The holistic view of my farm takes in all systemic construct properties, all *perceived* clusters of *extrinsic* properties and the properties of my living here and loving to be here, the *intrinsic container* of it all.

The first transfinite ordinal in the intrinsic property set consists of the identifiers of various systems and this can be as large as desired ó from microscopic to cosmic information. It is still *my home*, so the formula is S^I , for all systemic values of my home. The second transfinite ordinal is the end of systemic as we embrace the tangible *perceived* properties and these can also be as large as desired ó from comparison to each other - to comparison to all material existence in the universe. Again, these tangible features are features of my farm and my home, so the formula would be, E^I .

The final transfinite ordinal, in formal axiology, is the holistic view that *contains* it all ó both actual and potential properties and this formula would be, I^I .

The *ordinal* relation among the three dimensions of value allowed Hartman to construct a formal hierarchy of *value*. This is a mathematical *shadow-world or Avatar* of value or frame of reference which structures all value and valuation.

Without this logical frame of reference, we would not have the *Hartman Value Profile* or any other axiological assessment. Without this frame of reference we would not have solid foundations for a science of value at all. Hartman's development of the *foundations* of a scientific axiology is clearly one of the greatest achievements of the 20th century.

In the 21st century we see several novel approaches built upon Hartman's foundations, and I want to articulate the version we currently use to organize, measure, and create *value and valuation*. In the multi-dimensional description of my home and farm above, there is no need to *exponentiate* the systemic to get to the extrinsic. On the contrary, I use word definitions and measures *when needed* (for example, a description of the property in a survey or plat for the County Planning Commission) and I merely *shift emphasis* to focus on the external descriptors that can be seen (and *felt* when you get a bee-sting). That David and Vera live here and love the place is another shift in emphasis into the intrinsic realm, but it has no place in a discussion with the planning commission or a real estate company.

In my view, I do not believe people have to make one-to-one correspondences between predicate lists and object properties to capture *value*. *Everything has value* and what I actually do is focus on objects or features with *meaning emphasis*. This point of view does not adversely impact the axiom of value; it is simply a *redesign* made for the *valuation* side of the axiological system. Yes, my farm has value to the degree it has the properties it is supposed to have systemically, defining the *unique* place where I live. My home also has many properties it is *not* supposed to have (for example, woodchucks digging tunnels underneath my barn, and skunks eating my honeybees, and on and on in a constant battle of man versus nature). When a storm causes a tree to fall on my fence, it demands my attention, and I have to focus on cutting it up and repairing the fence ó *before* the horses escape. Clearly, many people suffer dire hardships due to natural disasters, as well as human-caused calamities that demand our immediate attention.

Now, in pure mathematics, transfinite numbers are the logical consequences of numerical expansion and are *unavoidable*. However, in human experience, there is no need to go beyond the first order infinity, symbolized by $|N|$. Hartman believed the systemic has to stop at a definite number which is always *finite*, an $|n|$, as is clear when counting properties of a geometric figure. What is the difference between the *finite* $|n|$ and the *infinite* $|N|$? I think these two designations are equivalent. I also think $|N|$ is also equal to $|o|$, although the *kind* of properties are clearly different, since they are in *clusters*. $|N|$ is not subject to counting and has greater value, due to the infusion of *emotion* into the parts of the *property inventory* that can be counted, thus making it a different kind of *whole object* and made richer in value intensity by *emotional* infusion.

Let us have a look at the value hierarchy, if it were changed into a *new design*, based on meaning *emphasis*. The *mental value judgment* forms are universal symbolic characteristics with meaning *emphasis* shown in larger font size. We separate the *mental* part and the *emotional* part due to the fact that *meaning emphasis* may be imposed on the subject, such as, the audit of your tax return by the IRS; a natural disaster beyond any human control; or being served with divorce papers or the death of a spouse or loved one.

Meaning Emphasis Patterns – A New Process Ethics Design for Education

- | | |
|-----------------|---|
| 1. S > E > I | minimum value, with <i>emphasis</i> on the finite systemic |
| 2. S > I > E | |
| 3. E > S > I | |
| 4. E > I > S | |
| 5. I > S > E | |
| 6. I > E > S | |
| 7. S > (E = I) | (\downarrow increasing value at each ascending level) |
| 8. E > (I = S) | |
| 9. (E = S) > I | |
| 10. I > (E = S) | |
| 11. (I = S) > E | |
| 12. (I = E) > S | |
| 13. I = E = S | maximum value capture |

These quantitative mental emphasis patterns *always* contain an emotional conditioning that provides *quality* to the mental judgment formula as we see in the emotional conditioning modalities below. I provide names for the emotional conditioning patterns and these names can be used effectively for the *diagnosis* of a person's capacities for value discernment. We have found these names to be accurate descriptors of a person's world-view and self-worth view in profiling, since my development of this logic deduction in the early 1980s, and published in my dissertation, in 1989.

Emotional Meaning Emphasis Modalities

Modality	World-view	Self-view
1. (I-, E-, S-)	detached	discontented
2. (I-, E-, S+)	vigilant	hopeful
3. (I-, E-, So)	reactive	searcher
4. (I-, E+, S-)	merchant	maintainer
5. (I-, E+, S+)	conformist	compulsive
6. (I-, E+, So)	operator	industrious
7. (I-, Eo, S-)	skeptic	reluctant
8. (I-, Eo, S+)	mastermind	assertive
9. (I-, Eo, So)	journalist	introspective
10. (I+, E-, S-)	accommodator	self-content
11. (I+, E-, S+)	reformer	dedicated
12. (I+, E-, So)	benevolent	self-indulgent
13. (I+, E+, S-)	facilitator	self-important
14. (I+, Eo, S-)	collaborator	sensitive
15. (Io, E-, S-)	independent	non-committal

16. (Io, E-, S+)	judge	expressive
17. (Io, E-, So)	unconventional	independent
18. (Io, E+, S-)	consultant	discriminating
g19(Io, Eo, S-)	critic	flexible
20. (Io, Eo, So)	virtuoso	open
21. (Io, Eo, S+)	innovator	visionary
22. (Io, E+, So)	proficient	master
<u>23. (I+, Eo, So)</u>	<u>peacemaker</u>	<u>saintly (HVP limit)</u>
24. (Io, E+, S+)	magician	
25. (I+, Eo, S+)	evangelist	
26. (I+, E+, So)	artist	
27. (I+, E+, S+)	creator	

When the mental emphasis patterns are put together with the emotional conditioning modalities, we have the components for a *value calculus* that works very well without *exponentiation* and without *transfinite mathematics*.

9. How the Process Value Calculus 3.0 Works:

This alternate approach to a calculus of value demands uniting two parts, the mental and the emotional. I explain the diagnostics in this section and *prescriptive change* should follow. *Change* for human betterment is an extensive topic, explained by the *axiological dialectic*. This axiological structure of *change* is *not included* in this essay.

First, we formulate the *mental* emphasis pattern to focus our understanding of the value formation, such as [I > E > S], an *intrinsic* focus, with secondary extrinsic and tertiary systemic influence.

The model for this emphasis pattern is taken from the HVP. The formula would be reflected in HVP results as a high score on the intrinsic, the second highest score on the extrinsic and the lowest score on the systemic.

This tells us that other persons (or your own self) are *amplified* and *magnified* as the focal point of valuation. Then, we add *emotional* conditioning modalities to show the *quality* (or emotional loading) of the value dimensions, as follows.

[I+ > E- > S-] = an intrinsic focus with engaged emotion

This shows *unconditional* engagement with others in love and friendship, paying no attention to what they may do (E-) or what they may think (S-). This formula is *diagnostic* and in terms of the HVP results, it would reflect the highest score is *overvalued*, the next highest score is *undervalued* and the lowest score is also *undervalued*.

A person will *over* or *under* value a given value object mainly due to *emotional conditioning*, and this reflects how a person has been taught to be attracted to it, appreciating its value, or not be attracted to it, depreciating it.

When we desire to help a person change for the better, we define *value change* through the *axiological dialectic*, which can be found in *overvaluation*, *undervaluation*, and *neutrality* in the HVP and targeted Parallel Forms of the HVP. This is the answer to define a *process* which can guide others to change for the better through exercises which examine *over* and *undervaluation* of

an object with the goal to reach *neutrality*. To see how this *therapeutic change* is implemented, see David Mefford, *The Knowledge of Good and Axiological Science – Foundations of Humanistic Transformation*, 2012.

The formula, [I+ > E- > S-] shows an unconditional engagement with others that may change to a judgment of others based on *what they do in life* as a social role or job, as follows.

$$[E+ > I\emptyset > S\emptyset]$$

This formula shows the other person (Intrinsic) as neutral, \emptyset , meaning it is dependent on their extrinsic emotional modality which has a positively-loaded emotional engagement, (+). This formula expresses that you like *only* those people who work in certain favored jobs or are in a certain social status you respect and admire. This defines how you treat others by social function, which is an integral part of ethics.

Consider the formula, [I+ > E \emptyset > S \emptyset], where the intrinsic (I) is elevated, as is common with a family member. The unconditional engagement with others can change to a judgment of others \emptyset worth, based on what they think *politically* or on their *religious affiliation*, as in the following formula.

$$S+ > I\emptyset > E\emptyset$$

Notice others remain valuable (the *Intrinsic* emphasized in *second* position), where the extrinsic and intrinsic value and worth of the person depends on their religious or political affiliation. This defines how you would treat others in society based only on their belief system (S+) and explains, to some extent, why a father would literally *kill* his child or children, if they deviate from the family or cultural religious belief system.

This value calculus can structure almost any value. I list a few examples below for illustration.

I+ > E- > S- = unconditional love

E+ > I \emptyset > S \emptyset = love based on Social Status

S+ > I \emptyset > E \emptyset = love based on shared belief systems (the Extrinsic is in third position due to rituals).

If the belief system is *absolute*, the formula changes, [S+ > (E- = I-)], the value pattern potentially describing the value emphasis of *a terrorist*.

The value calculus 3.0 is fairly easy to master. However, you will need practice under the guidance of a trained axiologist. When (and if) you accomplish proficiency in this method, you can really help people change for the better and guide them to living the values of the *Good Life*. I invite you to join us in building these structures, and together we will become *architects of goodness* or *value architects*.

10. Values Architecture

Professional business architects work with businesses and with units (or silos) of a business. They bring a different perspective into business structure. The work of business architects is similar to the work of a systems analyst, but with an *empirical* anchor of the business within its market horizon. The business architect focuses on three major business perspectives, 1) business direction and desired end-point; 2) the design of business operations to best meet this defined end-point and 3) the optimization of critical processes set on track to reach the desired end-point (Bodine and Hilty, 2009).

We recently worked with an *unprofitable* business unit within an insurance firm, and we found the use of axiological analysis gave us critical insights and saved a lot of time and effort. Formal Axiology is proving to be a catalyst in creating sustainable positive changes in business value formations. The use of applied formal axiology 3.0, including our targeted axiological assessments, was found to illuminate the needed design revision and helped to optimize business operations to best meet the desired end-point, which is broadly speaking, a return to profitability. This axiological analysis is the work of a *values architect – an emerging profession*.

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