



Chapter One - Dr. Hartman and His Work

The Attribute Index is based solely on the work of the late Dr. Robert S. Hartman. Dr. Hartman, a doctor of mathematics, philosophy, and law, was born in pre-world war II Germany where at the hands of the fledgling Nazi party he experienced first hand the organization of evil on a massive scale. It was the Nazi party's skill at organizing evil that led Dr. Hartman to postulate the question, "What is good?" He wondered how decent, honorable people could organize "good" in a similar fashion to combat such evil. From this first spark of wonder grew a life-long journey that led from wondering what is good to wondering how to classify good to seeking to understand how our brains work and finally to then understand how we perceived the world around us. To answer the questions scientifically he applied mathematics to the issue, and thus he created a new science, Axiology.

What follows is a bio of Dr. Hartman's full and venturesome life:

Robert Hartman, Research Professor of Philosophy at the University of Tennessee and the National University of Mexico, died on September 20, 1973, two days after receiving what some consider to have been the greatest acknowledgement of his work: his nomination for the Nobel Peace Prize.

Born Robert Schirokauer in Berlin on January 27, 1910, he attended the German College of Political Science, the University of Paris, the London School of Economics, and the University of Berlin, where for a brief time he also taught. He also served as an assistant district court judge.

As a schoolboy in Germany under the Kaiser Wilhelm II, he was required to report to his gymnasium each day to repeat the loyalty oath: "I was born to die for Germany." He became convinced that this oath was false. He believed in the infinite value of a human life, and that the state has a moral obligation to keep violent hands off that life. War, he thought, was madness. His rejection of all violent creeds, whether of Communism, Nazism, or Fascism, which he expressed in speeches and articles, brought him into conflict with the Nazi party, and forced him to leave Germany to escape imprisonment. Using a fake passport, he left Germany in 1932 for England. In order to hamper the Nazis in their efforts to keep track of him, he changed his name legally to that on the fake passport, Robert S. (for Schirokauer) Hartman.

From 1934 to 1941, still under surveillance by the Nazis, he was Walt Disney's representative, first in Scandinavia, later in Mexico and Central America. In 1938, using a Swedish alien's passport, he and his wife, the former Rita Emanuel, and son, Jan, left Europe for Mexico, where they lived until their immigration in 1941 to the United States, where they later became citizens.

Dr. Hartman's first teaching position in the United States was at Lake Forest Academy in Illinois. While there, he enrolled at Northwestern University (Ph.D., 1946). He later taught at the College of Wooster in Ohio (1945-48), and at Ohio State University (1948-56). He was a visiting professor at Massachusetts Institute of Technology (1955-56), and at Yale (1966). He was a Smith Mundt State Department Research Fellow and Exchange Professor at the National University of Mexico (1956-57). He held more than fifty lectureships in the United States, Canada, Latin America, and Europe. He was a research professor of philosophy at the National University of Mexico from 1957, and at the University of Tennessee from 1968 until his death in 1973.

As the author of more than ten books and over 100 articles, and translator of six books, he acquired a worldwide reputation. His life-long quest was to answer the question, "What is good?" Moreover, to answer the question in such a way that good could be organized to help preserve and enhance the value of human life. He believed that he had found the answer in the axiom upon which he based his science of Axiology, "A thing is good when it fulfills its concept." His formal Axiology, the ordering logic for the value sciences, receives its most complete expression in his major work, *The Structure of Value: Foundations of Scientific*

Axiology (1967), which one reviewer described as "one of the most constructive and revolutionary undertakings suggested in modern times." He applied his value method to economics in the Profit Sharing Manual (1948), *Die Partnerschaft von Kapital und Arbeit: Theorie und Praxis eines neuen Wirtschaftssystems* (1953), and *La participacion de utilidades en Mexico* (1963). In the field of psychology, he applied his Axiology in The Hartman Value Inventory, a value profile, which measures with exactness the character of an individual. Before his death, five of the largest corporations in this country used the Hartman value concepts in developing the sensitivity of their executives to the human value aspects of management decisions.

His international reputation and the esteem in which he is held by scholars throughout the world are reflected in *Value and Valuation: Axiological Studies in Honor of Robert S. Hartman* (1972).



Chapter Two - Axiology 101 - the Science behind the profile

Axiology: "The branch of philosophy dealing with the nature of value and the types of value, as in morals, aesthetics, religion, and metaphysics." Webster's New World Dictionary, 2nd Edition

Axiology is the science of value. The word "Axiology", derived from the two Greek roots 'axios' (worth or value) and 'logos' (logic or theory), means the theory of value. The development of the science makes possible the objective measurement of value or literally the act of making judgments about ourselves and the world around us. It is a mathematically accurate assessment that objectively identifies how our minds analyze and interpret our experiences. It also identifies how we are most likely to react in any given situation. Basically, it examines "how we think". It helps us to understand the patterns we use to make judgments. In turn, this allows us to translate these measurements into quantitative scores that can then be more easily understood, compared, and applied to the daily world. These processes determine how and why we act as we do. It provides a common language that we can then use to compare individual against each other, a position, or an environment.

Ours is a world of concepts. We live in a world where anything we can name, or think of, is a concept. Whether a chair, a plan, a person: no matter what, each individual has a concept of what that item is and should be. Building on the work of many of his predecessors, Dr. Hartman's research showed that there are three ways in which humans can perceive any single concept. We can see the structure of a thing, the application of a thing and the individuality of a thing. We will cover these three perspectives in a moment. He also discovered that the properties of these different perspectives (which he titled the "dimensions of value") had a direct correlation to the properties of the different sets in set theory. Adding calculus from his doctorate in mathematics, Hartman created the ultimate culmination of philosophy, human science and mathematics to create formal axiology. Thus was born the beginnings of the Hartman Value Profile, which lead to the profile you will be selling today and into the future.

He helped to do for social science what Newton did for the natural science. It was Newton who made a natural science out of natural philosophy. Before Newton there was no natural science, there was only the natural philosophy of Aristotle. The difference between natural philosophy and natural science is like the difference between alchemy and chemistry, or between astrology and astronomy. Philosophy applies theories with no quantitative system to verify the suppositions. It was the work of first Galileo, Kepler, and Newton (further developed by G. Moore, Einstein and now Hawking) to apply a mathematical structure to natural philosophy that led to the creation of a natural "science". Something quantifiable, valid, reproducible, and objective.

To quote Dr. Bob Smith, a significant thought leader in the field:

Significant advances have been made since Hartman's early discoveries. One of the most dramatic is Dr. Mark Moore's discovery that the properties of the different dimensions of value are identical to the properties of the different waves in quantum mechanics. This has led to our being able to model thinking using the more robust math of quantum physics. My research has led to my concluding that the different parts of our brains that process the different dimensions of value act like our senses.

Both our senses and the different processing regions of our brains are modular: independent, interdependent, variable in their sensitivity, and specifically suited for certain evaluations or tasks. Just as one person's sense of smell is significantly more sensitive than his eyesight, a second person can have razor sharp eyesight and a weak sense of smell. In this case, it is more likely that the second person's apartment smells worse and looks better than the first's. Therefore, it is with our thinking modules. They vary in their tendencies and abilities. In addition, it is the physiological differences of our thinking modules that lead to the differences

in how we process, reason, and make decisions.

The root of Dr. Hartman's discovery was in his identification of three distinct dimensions of value (different ways of judging or valuing things). They are the intrinsic, extrinsic, and systemic value dimensions. As in the above reference to our senses, everyone has different strengths and weaknesses in how they are able to apply these different dimensions when making decisions. No one uses each dimension, or thinking module, equally to make a decision. While some prefer the intrinsic dimension, others are more inclined to think in an extrinsic sense, or in a systemic way, and the results of any one individual's thought process depend on the amounts of focus they place on the combination of these three dimensions. Although all are used in the process of making a decision, some are more highly valued than others and it's this combination of perceptual dimensions (the number of combinations possible reaches over 50 million) that defines how we think, and differs our thoughts and decisions from other's. Therefore, everyone skews reality in their brains, only seeing part of the picture when making decisions, evaluating things, and thinking about one's self. The key is to understand how they skew them, which dimension is it that they value more or less, and to what percentage.

For example:

Someone that has a greater focus on the Intrinsic dimension, and uses this "sense", or aspect of judging things, will tend to be more empathetic than someone who make decisions using a more Systemic thinking pattern. The Intrinsic dimension is one of individual uniqueness. It is the capacity to be in touch with one's self and others through feelings and intuition, whereas the Systemic dimension of processing information is more aligned with structure, order, rules, ideals, goals, laws, black and white, wrong and right. The end result is someone thinking with an intrinsic focus is much more likely to take into consideration the feelings and emotions of a situation than someone thinking in the Systemic dimension who doesn't see people as much as he sees the process.

The trick is being able to measure how developed each of these dimensions are in an individual and then measuring how they apply them to their daily thought processes. By knowing, scientifically, which dimension plays a larger role, in relationship to each other dimension, we can accurately predict why and how someone might tend to make judgments. And...judgments about a concept control reactions to a concept (e.g., if I focus Systemically and judge people less significant than a given result, then that shapes how I will approach interacting with them, managing them, working for them, etc.).

Our actions are not unlike one big chain of thoughts starting with how we perceive something, which affects how we value it, which affects how we decide to deal with it, and then how we choose to act or interact with it. It is a chain of links and Axiology is examining the first link from which all the other links feed. This is not to say that the other links are not important, rather the overall ability they possess to shape who we are lessens as the further they are from the beginning of the chain. The results of working at this level are exponential. Changes made at this level require less effort to create greater impact on the individual.

People are different. They do not look alike. They do not all sound the same. In addition, they do not think the same either. Axiology is the science that studies how people think. Specifically, how people determine the value of different things. How individuals compare things and how those value assignments either represent or distort reality.

The summation of all of this is that Axiology is the scientific study of one's "thinking habits". Dr. Hartman called this unique pattern of thinking and assigning value our Value Structure.

A note of caution; people often confuse value with values. Values are specific items that people stand for, believe in, or deem important. To value is to think, to assign meaning and richness of properties to something. A Value Structure is the thinking map a person uses to reach conclusions about things.

People value to arrive at their values. If “to value” is the formula, then “values” are the sum



Chapter Three - The Three Dimensions of Thinking

The science behind Axiology is incredibly theoretical, and can easily turn even the most enthusiastic student away feeling dejected and confused. Those who are, as am I, highly dominant, utilitarian, Type-A people, may find the urge to "just go use it" overwhelming, but it is important to understand the basic tenets of Hartman's work so as to understand how we arrive at the scores you will use to help your clients. The following is a brief explanation of these tenets.

Formal Axiology is unique in that it is the only social science that has a one to one relationship between a field of mathematics (transfinite set calculus). While logic also has this relationship, it is usually not considered a social science. Formal Axiology also differs from other social sciences in that it is deductive. Deductive sciences begin with theorems and move to specific, measurable manifestations, applications, and predictions. The job of the scientist in a deductive science is to test the theorems against measurable reality. Physicists, mathematicians, doctors, statisticians, and engineers are always comparing the implications and applications of their theorems to reality. Formal Axiology does the same. All other branches of the social sciences (philosophy, psychology, anthropology, sociology, etc.) are inductive. Inductive sciences begin with specifics gained through observation, move to general conclusions that are based on observations of populations, and then move back to specifics.

Formal Axiology is deductive and can be compared to the measurement of motion in the physical sciences.

As we stated earlier, Dr. Hartman identified three distinct dimensions of thought, which he called the Dimensions of Value. We value everything in one of these three ways or in a combination of these dimensions. These Dimensions of Value again and in order of importance are Intrinsic, Extrinsic and Systemic.

The Intrinsic dimension

The dimension of uniqueness and singularity. This is the dimension of uniqueness, of person or things as they exist in themselves. There is no comparing. There is no fulfilling of concepts. The fulfillment of a concept (systemic) or the containing of properties (extrinsic) are ignored because of the 'essence' or 'being' of the object. This is the valuing of an object or person with an eye toward its singularity, essence, uniqueness, or spiritual being.

When describing or valuing persons or objects in this dimension, one becomes personally involved with the object/person. There is a self-giving to the object/person which is not present in valuing extrinsically or systemically. The object/person is being valued and recognized as irreplaceable because it is seen as unique. Intrinsic valuation is displayed in phrases like, "You're the ONLY girl in the world!," "I LOVE you, just as you are.", "That is an heirloom and is PRICELESS."

From the perspective of systemic and extrinsic valuing, intrinsic statements make no sense (after all everything has a price!). Mathematically this dimension includes non-denumerable infinite sets with infinite elements or properties (unlimited possibilities that cannot be individually identified with an unlimited number of elements concerning the person or object in question). When you begin to describe someone you love (value intrinsically), even after five pages of description, you are no closer to fully describing the person than when you first begun because the individual aspects that make up the unique person are all intertwined and lose their meaning when separated from each other.

This is the usually identified as the dimension of poets, artists, mystics, advertisers, chefs,

theologians, and musicians. When a person pays too much attention to the intrinsic dimension the resultant behavior will be an over attention to the good in others, a tendency to avoid putting others in uncomfortable positions, and a need to have one's feelings satisfied in order to make a decision.

When a person pays too little attention to the intrinsic dimension, the resultant behavior will be basic questioning of the intentions of others, a tendency to see others functionally or as part of a system (instead of treating people as unique individuals), and a gruff or cold behavior when relating to others in comparison to those who over value this dimension. To say something is priceless is an assertion of the object's intrinsic value. Such a statement makes absolutely no sense from an extrinsic perspective!

The Extrinsic Dimension

The dimension of abstracting properties, comparing things to each other. This is the dimension of comparisons, relative and practical thinking. It includes the elements of the real, material world, comparisons of good/better/best, and seeing things as they compare with other things in their class. This is the dimension of seeing things and their properties as they apply in different contexts. To say "Please go get my good shoes" is to ask a person to extrinsically value the different shoes. Right now, a specific pair of shoes better fulfills the meaning of "good" than any other pair of shoes. At another point in the week, a different pair of shoes can better fulfill the properties of "good". It is possible that no pair of shoes perfectly fulfills the definition of "good shoes", yet one will more closely fulfill the concept than others will. To compare is to value extrinsically. So, the extrinsic dimension is one of comparisons, of determining how rich in properties a particular object or person is in relation to another object or person. This dimension is not actually addressing the thing itself. It is addressing how the thing or person contains the properties of the group or class to which it belongs.

To value a person extrinsically is to compare that person in relation to other persons. A common example of this is by the setting of wages for a speaker. If the particular speaker is better than the worst speaker, who gets paid \$2.00 per hour, and is not as good as the best speaker, who gets paid \$50,000 per hour, then the speaker in question should be paid something between two and fifty thousand for a one hour speech. Such valuing is extrinsic.

Mathematically this dimension includes denumerable infinite sets with finite elements or properties (that is: infinite possibilities that can be specifically identified with a finite number of properties regarding the object in question). In other words, "good" shoes on Sunday morning includes three characteristics (expensive, brown, wing-tips), which are chosen from an unlimited set of specific possibilities (new, old, expensive, moderately priced, inexpensive, black, brown, gray, silver, cordovan, tie, slip-on, etc.).

This dimension is one of results and common sense thinking, tactical planning, role satisfaction, and social fulfillment. This is the primary dimension of business. When a person pays too much attention to the extrinsic dimension, the resultant behavior will be an overemphasis on getting things done NOW, a tendency to see other people as functional commodities, and a need for things to constantly be happening.

When a person does not pay enough attention to the extrinsic dimension, the resultant behavior will be a tendency to avoid unpredictable situations, a devaluing of what it takes to get something done, and an avoidance of the fulfilling of social norms and values. "To be better is to be richer in properties"

The Systemic Dimension

The dimension of formal concepts. Ideas of how things should be. This dimension is the one of definitions or ideals, goals, structured thinking, policies, procedures, rules, laws, oughts and shoulds. It is one of perfection. If a person values something or someone systemically, then that person has to fulfill the idea perfectly. In other words, either you have obeyed the law (a mental idea of how we should act) or you have broken the law (the non-fulfillment of the idea). A woman is either pregnant (a mental definition of a state of being) or is not pregnant (does not perfectly fulfill all of the aspects of the definition of pregnant). Here the valuation is based on total and complete fulfillment of an idea. There is no middle ground or partial fulfillment in the systemic. You either perfectly fulfill the concept (ideal, definition, law, policy, etc.) or you do not fulfill the concept.

Another example of systemic valuing is displayed by the definition of a geometric circle: "A plane closed curve equidistant from a center point." If an object fulfills this definition, then it is a geometric circle. If it lacks only one element of the definition, then it is not a geometric circle. Every definition is an "idea." To value something by definition is to give it systemic valuation. It is either total fulfillment or non-fulfillment of the idea. The systemic dimension is the world of Yes/No, black/white, and shoulds. There are no possible shades of maybe or partially. The concept is either fulfilled or not fulfilled.

The mathematical properties of this dimension are finite sets and finite elements (that is, a limited number of choices and a limited number of properties for the particular object in question). This dimension is the major aspect of geometry, physical science, law, dogmatics, policies and procedures, doing things right, ideals, principles, personal attainment of one's goals, schematic thinking, order, prejudice, and perfection. When a person pays too much attention to this dimension the resultant behavior is an overemphasis on doing thing by the book, an excessive preoccupation with planning and having things be done perfectly, a strong tendency to measure everything and everyone against a preset idea of how they should be, and an inability to be comfortable with changes and surprises.

When a person does not pay enough attention to this dimension, the resultant behavior is an unwillingness to submit to policies and rules imposed from the outside, a skepticism about the value of spending time and money planning for the future, and an uneasiness when systems are in place and running smoothly.

Easier terms for your clients

Some simpler terms for these three dimensions in the external world are: Thinking (S), Doing (E), Feeling (I). In the internal world, it is easy to discuss: What you are (S), What you do (E) and Who you are (I). Or, People (I), Tasks (E) and Systems (S). Some easier talking points are also that axiology looks at decision making styles and in general terms there are three decisional styles: Analytical, Practical, Personal. Analyticals tend to see the world as a problem to be understood and solved, Practicals see the world as tasks to be completed, and Personals see the world as being filled with humans needing to be understood and utilized.

Another way to describe it simply to your clients is to say that there are three sides to reality, which humans can see. We can see the structure of a thing (S), then the application of that thing (E), then the individuality of that thing (I).



Chapter Four - The Instrument

The Attribute Index contains a two part instrument, each part consisting of 18 phrases which the respondent is to order from “1” to “18” based on which they feel is better or worse. This forced ranking covertly measures the focus and clarity with which they exercise each of the three dimensions of thought.

Each dimension can be valued in one of three ways: intrinsically, extrinsically or systemically. Therefore; three dimensions, multiplied by three subsequent valuations equals nine possible combinations (e.g., a statement that represents the intrinsic valuation of an extrinsic item or E^I). In addition to such valuations, each dimensional combination mentioned above can be made in both a positive and a negative way. This takes the nine combinations to eighteen (nine positive and nine negative), and the result is the eighteen phrases or words you see on each part of the instrument today.

These statements represent Dr. Hartman’s Hierarchy of Value.

Below is one such statement from the instrument, and a complete definition as it relates to its position in this hierarchy:

A Token of Love: An extrinsic valuation of an intrinsic dimension (I^E). The intrinsic value is the person being loved. This is valued by the token, which is a thing, that is, an extrinsic dimension.

Part I contains phrases or statements that assess the individuals dimensions of thought as they relate to the world around them, while Part II assesses how they think about themselves.

The ability of these statements to accurately measure exactly what they are supposed to has been the subject of a great deal of validation studies; the results of which can be found later in this document in the “Compendium of Validation Studies”.

The single most important characteristic to this instrument is that its intentions are hidden from the respondent. I mention “covert” measurement in the opening paragraph of this section because unlike most instrument available today, the respondent can neither understand or identify any pattern to the task before them other than the stated purpose (i.e., rank the statements from better to worse). The result is a higher level of validity since the respondent cannot skew the results based on what they “think” they should say. Without knowing how their ranking works, they are at a loss to attempt to affect the results. Basically,...we are measuring the real thinking process that they employ.

All of the statements used in this instrument were originally created and chosen by Dr. Hartman himself.