

Unified Science, A New Paradigm

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The "Copernican change of attitude" that Haskell is initiating is the assumption, or "paradigm," that the universe is essentially one coherent system; that "All natural systems have a common underlying structure," and that "a single law pervades the universe." This concept is familiar enough to philosophers and men of religion, but is a revolutionary one for scientists. The basic assumption of 19th century science has been that things of creation are basically *diverse*; and that one therefore cannot compare religion, morality, or ethics to physical, chemical, or biological phenomena.

Haskell completely reverses that paradigm by proving that all things are basically *similar*. As Harold Cassidy says in his summary of Haskell's work, "In my opinion, Haskell has discovered a scientifically-based pattern of a universal kind which is displayed in some respect by all of human knowledge and experience of Nature and Man."

Haskell says that all systems exist in the relation of *Controller* (subject) and *work component* (object), and that the properties of a system depend upon the *coaction* (give and take) between the two. Haskell then goes on to analyze the possible kinds of "coactions" that could occur between controller and work component. Theoretically, there are only three ways that the one could affect the other.

		X		
		-	0	+
Y	+	-,+	0,+	+,+
	0	-,0	0,0	+,0
	-	-, -	0,-	+, -

Fig. 1 Cross-tabulation of two opposing entities

One could decrease the other's activities (-), not affect them (0), or increase them (+). By cross-tabulating, we get nine possible coactions between controller (Y) and work component (X). (See Fig. 1) Haskell then maps these nine coactions onto a new kind of coordinate system, called the "Periodic Coordinate System." The Y or vertical axis represents the controller, and the X or horizontal axis represents the work component.

Haskell gives names, some taken from biology, others he invented, to the nine coactions. (See Fig. 2) "Symbiosis" (+, +) means mutual aid or cooperation. Its opposite, "synnecrosis," (-, -) means mutual harm or destruction. Between them are "predation" (-, +), the controller increasing at the expense of the work component; "parasitism" (+, -), where the work component increases at the expense of the controller; and such coactions as "commensalism" (+, 0) where the work component benefits without affecting the controller (as for example, when a tiny bird makes a home in the mighty tree without affecting the tree),

and so on. "Neutrality" (0, 0) means stability or staying the same. This coaction is represented on the Periodic Coordinate System by a circle, called the "circle of atrophy" which establishes a reference point from which rate changes in the various coactions can be calculated. Thus, the line turning outside the circle represents growth and development, or "ectropy"; the line turning inside the circle represents breakdown and disintegration, or "entropy." Thus the axes are shown pointing outward toward "Omega," the point of maximum organization: and inward toward "Alpha," the point of maximum disorganization.

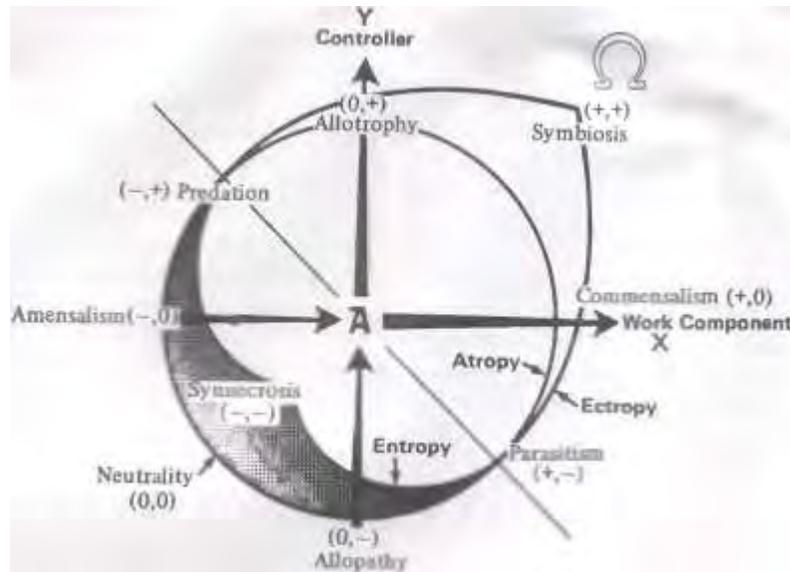


Fig. 2 Coaction compass

A Scientific View of Value

As we can see, the coaction called symbiosis (+, +) is the most productive and creative coaction. (We might call this "good give-and-take.") Consequently, systems which cooperate grow and develop, and systems which conflict (have negative coactions) break down and disintegrate. Thus the universe is shown to have a "positive value-bias": that is, harmony and cooperation, what we call goodness, preponderates in the universe. This is the most significant aspect of Unified Science from a religious and humanistic point of view: the fact that a scientific view of values has emerged which supports the basic values of the world's great religions.

Haskell says "it is positive coactions that *predominate* on our planet. They have predominated in all natural kingdoms for billions of years, as shown by the fact that evolution has been mainly *upward*. And all the great religions unite in affirming it" (p. 66). Further, he says "This law, extending through the hierarchic sky down to the atoms affirms that the *properties of systems are functions of their coactions*; that 'As ye sow so shall ye reap.' This contradicts the paradigm of the cultural relativists who affirm that cultures with diametrically opposite value premises are equally valid. In the same way it contradicts the Existentialist's paradigm that there are no objective values. When I say that the world has come full circle I mean that we have come to recognize that *Moral and Natural Law are the same thing*" (p. 69).

Hierarchy

Another important aspect of Haskell's work is his explanation of the hierarchical structure of the universe. He says "The Universe is a Systems-Hierarchy. It has evolved in a cumulative manner, each higher step in this hierarchy, after the first, consisting of lower step components plus a new entity which has emerged out of the hierarchy, mutually modified." Furthermore, "the structure of all the higher rings is potential and implicit in the forms and laws of the lower ones" (p. 21).

Man, as the highest step in the hierarchy, encapsulates, and is therefore able to control, all of the "lower step components." (See Fig. 3)

This, of course, ties in exactly with the Principle concept of man's dominion and the "hierarchy of centers." (Using Haskell's terminology, we could call it the "hierarchy of controllers.") This implies, as the Principle says, that man is a microcosm of the universe, and leads Haskell to the very brink of admitting that God exists: "Since this hierarchy's highest emergent member is the mind-spirit of man, it follows that the structure and operation of its collectivity of lower parts must similarly be mind-like, overall" (p. 189). If scientists can admit, as Haskell does here, that the operation of the universe is "mind-like," it is a logical step from there to admit that the universe operates according to Mind itself, namely God.

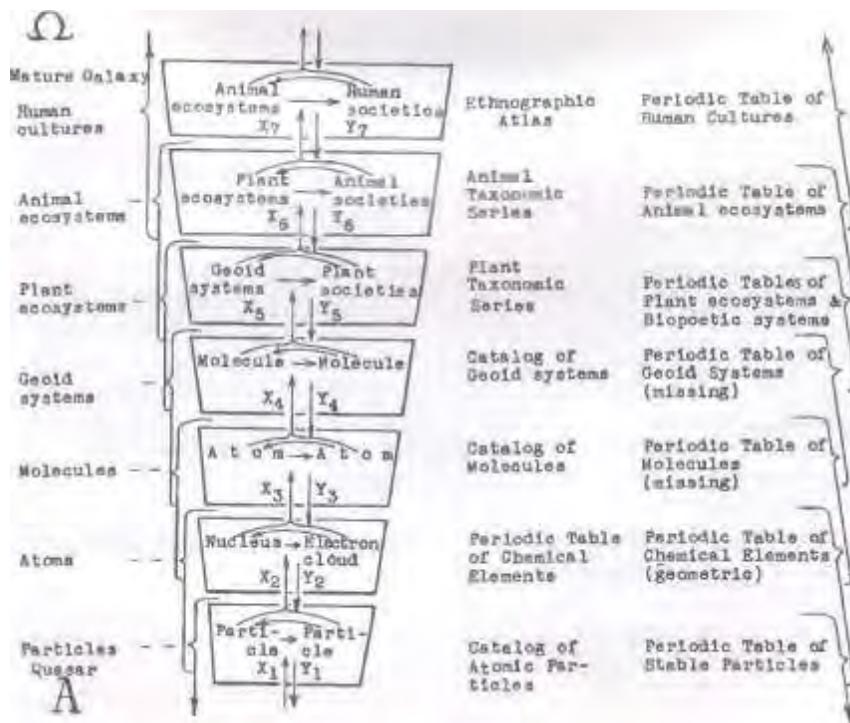


Fig. 3 Cup of Life

Unification of the Sciences into a Single Discipline

From a scientific point of view, probably the most significant aspect of Haskell's work is the way in which he extends the same "vocabulary, notation, and background theory" to include all the data of all the sciences, in effect, unifying the formerly separate scientific disciplines into a single discipline.

Take, for example, the Periodic Table of Chemical Elements. As we all know from high school, the Periodic Table classifies the properties of the chemical elements according to their atomic weight or number. From the point of view of Unified Science (or "Unisci" for short), the properties of the atoms are a function of the coaction between the nucleus (controller), and the electron cloud (work component).

The reason that there are nine groups in the periodic table is because, Haskell says, there are only nine possible coactions.

The carbon atom, for example, is characterized by symbiosis. It is a uniquely "cooperative" atom which forms stable bonds with many different atoms, thus forming long chains of hydrocarbons, the basis of life. In the same group as carbon is silicon, which forms the basic material of earth and the planets.

At the opposite end of the "coaction compass" are the halogens; atoms which lack an electron in their outer shell and therefore are extremely "grabby," not able to form stable bonds, and also "ripping off" atoms from larger molecules in trying to fulfill their need. Fluorine and chlorine, highly reactive and poisonous gasses, are in this category. Thus we see the "Moral Law" even in atoms.

Atoms also display a cumulative increase in the electron energy-level of the electron cloud, which superficially seems to be constructed in terms of atomic weight or atomic number. In Haskell's terms, however, this means "increasing control capability in the nucleus with corresponding increases in the organized complexity of the electron cloud."

The Periodic Table of Human Cultures

This same structure displayed by atoms occurs on every level of existence, from atoms, plants, animals, and on up to human cultures. Therefore Haskell has been able to develop periodic tables of plants, animals, human cultures; and those of molecules, geoid systems, etc. are being developed.

For now, let us examine human cultures in the light of Unisci. Human culture displays "increasing control capability in each social system's controller, its leading minority, with corresponding increases of production capability in its work component (the people)." Thus we have different "periods" or stages in the development of human culture, just as there are different energy levels in the electron cloud of atoms.

According to Haskell, there are six periods in human culture starting with primitive hunters and gatherers on up to our modern industrial society. Each step upward was accomplished through the genesis of a new "level of abstraction" in the mind of society's creative minority, giving rise to a new type of man and a new ruling class. "Lower Industrial Society," period six, therefore, has six social strata, recapitulating the six stages of cultural growth (See Fig. 4).

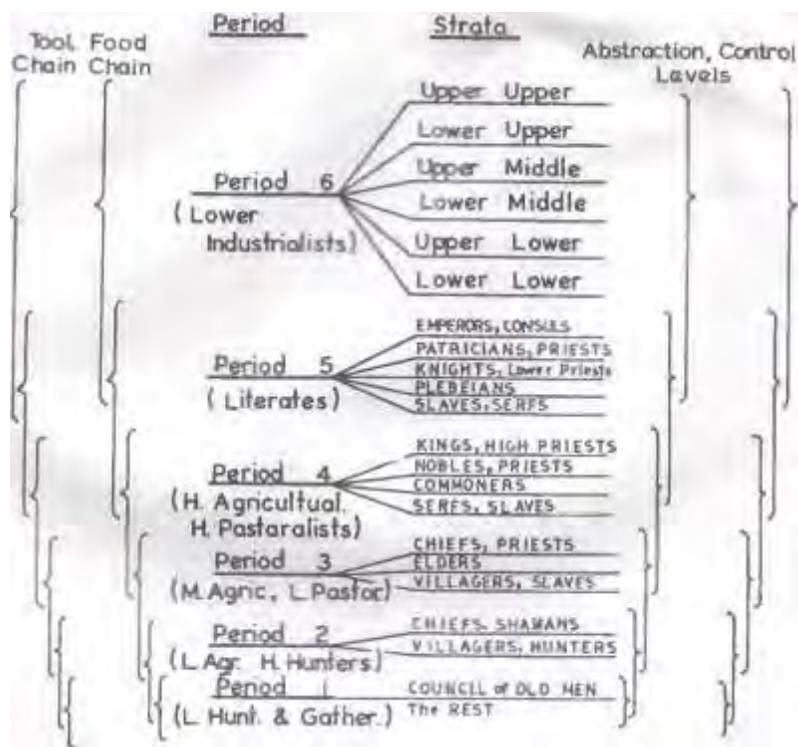


Fig. 4 Periodic Table of Human Development

Haskell says further that lower industrial society is generating a seventh period, "Higher Industrial Society," which will, he predicts, organize the whole planet cybernetically into a stable, harmonious ecosystem, the genesis of a new level of world civilization. This necessitates the rise of a new type of man thinking on a higher level of abstraction (we would say level of spiritual development) which is capable of taking in the entire universe. Interestingly enough, the Bible says that God created the universe in six days, and on the seventh He rested (that is, man took over). This parallel with Unisci must be based on more than coincidence.

Haskell's social theory also presents a thorough and quite devastating critique of Marxism-Leninism, in proving that cooperation rather than "contradiction" is the true basis of progress, and in demonstrating that a "classless society" is objectively impossible.

Haskell clearly demonstrates that the key to social growth and harmony is to get every class to love and respect one another, regardless of social rank or prestige, and cooperate toward their mutual benefit.

Dr. Arthur Jensen, the controversial educational psychologist from Berkeley, California, provides a chapter describing the different levels or "ceilings" of people's mental capacities, suggesting that tests should be developed to help each person find his place in society commensurate with his capacity. This is likely to bring protests from left-wing and egalitarian social scientists, but, in my opinion, Haskell seems to be on much stronger theoretical and factual ground.

Also, the "coaction compass" of Unisci offers an analytical tool to understand political groups and ideologies which is far superior to the traditional "left-right and center" political spectrum.

Implications

The implications of this organization of all the data of science is staggering to contemplate. As we know, Mendeleev's discovery of the Periodic Table of Chemical Elements gave rise to a tremendous advance in the physical and chemical sciences by making coherent a formerly jumbled mass of data concerning the chemical and physical realms. Thus arose the great technological revolution in which we're involved today.

With Unisci, Haskell has organized the periodic tables of plants, animals, human cultures; and those of molecules, geoid systems, etc. are being developed. This apparently means that man can now begin to have as much control over the biological and psycho-socio-political realms as he does in physics and chemistry; thus the "circle of perfectibility" is extended to every realm of the physical universe.

By itself, Unisci is definitely the harbinger of a scientific revolution. It organizes the fragmented knowledge of science into a coherent whole; demonstrates that moral law and natural law are one; established a bridgehead between science and religion; and provides modern man with a "working model" of the universe, which makes possible the necessary understanding to gain control over the physical universe, and greater control over man's destiny.